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Disposition as this, beginning with the conclusion: "An honest man ought to shun no danger, but readily expose his life for the safety and preservation of his country." Then the reason of this conduct might be added, which is the antecedent of the enthymem, or minor of the syllogism: "For he is sensible, that his obligations to his country are so many, and so great, that he can never fully requite them." And this again might be confirmed by an enumeration of particulars: "He looks upon himself as indebted to his country for every thing he enjoys; for his friends, relations, all the pleasures of life, and even for life itself." Now the orator calls this *one enthymem*, though in reality there are two: For the second reason, or argument, added to the first, becomes the antecedent of a new enthymem, of which the first reason is the consequent. And if these two enthymems were expressed separately in the natural order of the parts, the former would stand thus: "An honest man thinks himself under the highest obligations to his country; therefore he ought to shun no danger for its preservation." The latter thus: "An honest man esteems himself indebted to his country for every thing he enjoys; therefore he thinks he is under the highest obligations to it." The same thing might be proved in the like way of reasoning, by arguments of a different kind. From comparison, thus: "As it would be thought base and ungrateful in a son not to hazard himself for the preservation of his father; an honest man must certainly esteem it so when his country is in danger." Or from an example, in this manner: "An honest man in like circumstances would propose to himself the example of Decius, who freely gave up his life for the service of his country. He gave up his life indeed, but did not lose it; for he cannot be said to have lost his life, who lives in immortal honour." Orators frequently intermix such arguments to adorn and illustrate their subject with others taken from the nature and circumstances of things. And now, if we consider a little this method of reasoning, we shall find it the most plain and easy imaginable. For when any proposition is laid down, and one or more reasons subjoined to prove it, each reason joined with the proposition makes a distinct enthymem, of which the proposition is the conclusion. Thus Cicero, in his seventh Philippic, lays down this as the foundation of his discourse, "That he is against a peace with Mark Antony;" for which he gives three reasons: "Because it is base, because it is dangerous, and because it is impracticable." These severally joined with the proposition, form three enthymems; and upon each of these he discourses separately, which make up that oration. And this method is what persons for the most part naturally fall into, who know nothing of the terms *syllogism* or *enthymem*. They advance something, and think of a reason to prove it, and another perhaps to support that; and, so far as their invention will assist them, or they are masters of language, they endeavour to set what they say in the plainest light, give it the best dress, embellish it with proper figures and different turns of expression; and, as they think convenient, illustrate it with similitudes, comparisons, and the like ornaments, to render it most agreeable, till they think what they have advanced sufficiently proved. As this method of arguing therefore is the

most plain, easy, and natural; so it is what is most commonly used in oratory. Whereas a strict syllogistical way of discoursing is dry and jejune, cramps the mind, and does not admit of those embellishments of language which are a great advantage to the orator: for which reason he seldom uses complete syllogisms; and when he does, it is with great latitude. In every discourse care should be taken not to blend arguments confusedly together that are of a separate nature. "All arguments (says the elegant Dr Blair) are directed to prove one or other of these three things; that something is true; that it is morally right or fit; or that it is profitable and good. These make the three great subjects of discussion among mankind; truth, duty, and interest. But the arguments directed towards any one of them are generically distinct; and he who blends them all under one topic, which he calls his argument, as, in sermons especially, is too often done, will render his reasoning indistinct and inelegant. Suppose, for instance, that I am recommending to an audience benevolence, or the love of our neighbour; and that I take my first argument from the inward satisfaction which a benevolent temper affords; my second, from the obligation which the example of Christ lays upon us to this duty; and my third, from its tendency to procure us the good-will of all around us; my arguments are good, but I have arranged them wrong: for my first and third arguments are taken from considerations of interest, internal peace, and external advantages; and between these, I have introduced one, which rests wholly upon duty. I should have kept those classes of arguments, which are addressed to different principles in human nature, separate and distinct."

II. The other method of reasoning is the analytic, in which the orator conceals his intention concerning the point he is to prove, till he has gradually brought his hearers to the designed conclusion. They are led on, step by step, from one known truth to another, till the conclusion be stolen upon them, as the natural consequence of a chain of propositions. As, for instance, when one intending to prove the being of a God, sets out with observing that every thing which we see in the world has had a beginning; that whatever has had a beginning, must have had a prior cause; that in human productions, art shown in the effect, necessarily infers design in the cause; and proceeds leading you on from one cause to another, till you arrive at one supreme first cause, from whom is derived all the order and design visible in his works. This is much the same with the Socratic method, by which that philosopher silenced the sophists of his age.

He proceeded by several questions, which being separately granted, the thing designed to be inferred was afterwards put, which, by reason of its similitude with several cases allowed before, could not be denied. But this is a captious way of reasoning; for while the respondent is not aware of what is designed to be inferred, he is easily induced to make those concessions, which otherwise he would not. Besides, it is not so well suited to continued discourses, as to those which are interlocutory; and therefore we meet with it ofteneft in the Socratic dialogues both of Plato and Xenophon. However, it may be made use of in oratory by a figure called *subjection*, when the same per-

Disposition. Son first puts the question, and then makes the answer. So in the famous cause of Epaminondas, general of the Thebans, who was accused for refusing to surrender his command to his successor appointed by the state, till after he had engaged the enemy, and given them a total defeat, Cicero thus represents his accuser pleading for the words of the law against Epaminondas, who alleged the intention of it in his defence: "Should Epaminondas add that exception to the law, which, he says, was the intention of the writer, namely, *Except any one refuse to give up his command when it is for the interest of the public he should not*; would you admit of it? I believe not. Should you yourselves, which is a thing most remote from your justice and wisdom, in order to screen him, order this exception to be added to the law, without the command of the people; would the Thebans suffer it to be done? No certainly. Can it be right then to come into that, as if it was written, which it would be a crime to write? I know it cannot be agreeable to your wisdom to think so."

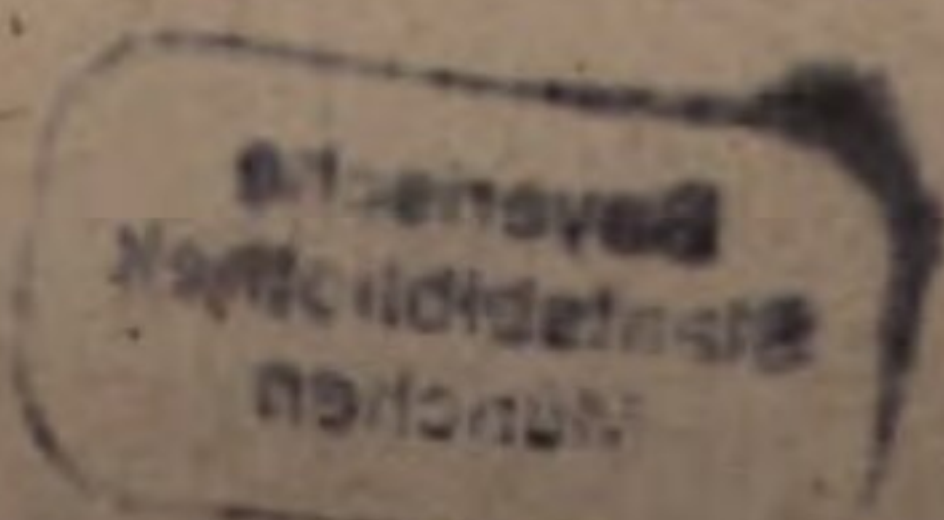
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May comprehend
reasoning
by example.

Under the analytic method may be comprehended reasoning by *example*. Rhetoricians use this word in a different sense from the common acceptation. For that is usually called an *example*, which is brought either to prove or illustrate some general assertion: As if any one should say, that *human bodies may be brought to sustain the greatest labours by use and exercise*; and in order to prove this should relate what is said of Milo of Croton, that "by the constant practice of carrying a calf several furlongs every day, he could carry it as far after it had grown to its full size." But in oratory the word *example* is used for any kind of similitude; or, as Vossius defines it, "When one thing is inferred from another, by reason of the likeness which appears between them." Hence it is called an *imperfect induction*, which infers something from several others of a like nature, and has always the greatest force when the examples are taken from facts. Now facts may be compared with respect to some agreement or similitude between them, which in themselves are either equal or unequal. Of the former kind this is an instance: "Cato acted as became a patriot and a lover of his country's liberty, in opposing the arms of Cæsar: and therefore so did Cicero." The reason of the inference is founded in the parity of the case, which equally concerned all good subjects of the Roman government at that time. For all were alike obliged to oppose a common enemy, who endeavoured to subvert the constitution, and subject them to his own arbitrary power. But though an example consists in the comparison of two single facts, yet several persons may be concerned in each fact. Of this kind is that which follows: "As Pompey, Cæsar, and Crassus, acted illegally in the first triumvirate, by engrossing the sole power into their own hands, and by that means violating the public liberty; so likewise did Augustus, Mark Antony, and Lepidus, in the second triumvirate, by pursuing the same measures." But when Cicero defends Milo for killing Clodius, from the like instances of Ahala Servilius, Scipio Nafica, Lucius Opimius, and others; that is not an example, but an induction: because one thing is there inferred from its similitude to several others. But when a comparison is

made between two facts that are unequal, the inference may be either from the greater to the less, or from the less to the greater. From the greater to the less in this manner: "Cæsar had no just pretensions to the Roman government, and therefore much less had Antony." The reason lies in the difference between the two persons. Cæsar had very much enlarged the bounds of the Roman empire by his conquests, and greatly obliged the populace by his generosity; but as he had always acted by an authority from the senate and people of Rome, these things gave him no claim to a power over them. Much less then had Antony any such pretence, who always acted under Cæsar, and had never performed any signal services himself. Cicero has described the difference between them in a very beautiful manner in his second Philippic, thus speaking to Antony: "Are you in any thing to be compared to him? He had a genius, sagacity, memory, learning, care, thought, diligence; he had performed great things in war, though detrimental to the state; he had for many years designed to get the government into his hands, and obtained his end by much labour and many dangers; he gained over the ignorant multitude by public shows, buildings, congiaries, and feasts; obliged his friends by rewards, and his enemies by a show of clemency. In a word, he subjected a free state to slavery, partly through fear, and partly compliance. I can liken you to him for ambition of power; but in other things you are in no respect to be compared with him." By a comparison from the less to the greater, Cicero thus argues against Catiline: "Did the brave Scipio, when a private man, kill Tiberius Gracchus, for attempting to weaken the state; and shall we consuls bear with Catiline endeavouring to destroy the world by fire and sword?" The circumstances of these two cases were very different: and the comparison runs between a private man, and a consul intrusted with the highest authority; between a design only to raise a tumult, and a plot to destroy the government: whence the orator justly infers, that what was esteemed lawful in one case, was much more so in the other. The like way of reasoning is sometimes used from other similitudes, which may be taken from things of all kinds, whether animate or inanimate. Of the former sort is that of Cicero speaking of Muræna, when candidate for the consulship, after he had himself gone through that office: "If it is usual (says he) for such persons as are safely arrived in port, to give those who are going out the best account they can with relation to the weather, pirates, and coasts; because thus nature directs us to assist those who are entering upon the same dangers which we ourselves have escaped: how ought I, who now after a great storm am brought within a near prospect of land, to be affected towards him, who, I perceive, must be exposed to the greatest tempests of the state?" He alludes to the late disturbances and tumults occasioned by the conspiracy of Catiline, which had been so happily suppressed by him in the time of his consulship. Of the latter kind is that of Quintilian: "As the ground is made better and more fruitful by culture, so is the mind by instruction." There is both a beauty and justness in this simile.

But comparisons are sometimes made between facts and

Disposition.



Disposition. and other things, in order to infer some difference or opposition between them. In comparing two facts, on account of some disagreement and unlikeness, the inference is made from the difference between one and the other in that particular respect only. As thus: "Though it was not esteemed cruelty in Brutus to put his two sons to death, for endeavouring to betray their country; it might be so in Manlius, who put his son to death, only for engaging the enemy without orders, though he gained the victory." The difference between the two facts lies in the different nature of the crime. The sons of Brutus entered into a conspiracy to betray their country; and though they miscarried in it, yet the intention and endeavours they used to accomplish it were criminal in the highest degree. But young Manlius could only be charged with rashness. His design was honourable, and intended for the interest of his country; only it was irregular, and might have proved of ill consequence to military discipline. Now in all such cases, the force of the argument is the stronger the greater the difference appears. But the same facts which differ in one respect may agree in many others; as in the example here mentioned. Brutus and Manlius were both magistrates as well as fathers: they both killed their sons, and that for a capital crime by the Roman law. In any of which respects they may be compared in a way of similitude: as, "If Brutus might lawfully put his son to death for a capital crime, so might Manlius." But now contrary facts do not only differ in some certain respect, but are wholly opposite to each other; so that what is affirmed of the one must be denied of the other; and if one be a virtue, the other is a vice. Thus Cicero compares the conduct of Marcellus and Verres in a way of opposition. "Marcellus (says he), who had engaged, if he took Syracuse, to erect two temples at Rome, would not beautify them with the spoils he had taken: Verres, who had made no vows to Honour and Virtue, but to Venus and Cupid, endeavoured to plunder the temple of Minerva. The former would not adorn the gods with the spoils of other deities: the latter carried the ornaments of Minerva, a virgin, into the house of a strumpet." If therefore the conduct of Marcellus was laudable and virtuous, that of Verres must bear the contrary character. But this way of reasoning has likewise place in other respects. Thus Cicero, in the quarrel between Cæsar and Pompey, advised to peace from the difference between a foreign and domestic war: "That the former might prove beneficial to the state; but in the latter, whichever side conquered, the public must suffer." And thus the ill effects of intemperance may be shown in a way of opposition: "That as temperance preserves the health of the body, keeps up the vigour of the mind, and prolongs life; so excess must necessarily have the contrary effects."

Thus we have given a brief account of the principal ways of reasoning commonly made use of by orators. As to the disposition of arguments, or the order of placing them, some advise to put the weaker, which cannot wholly be omitted, in the middle: and such as are stronger, partly in the beginning, to gain the esteem of the hearers and render them more attentive; and partly at the end, because what is last heard is likely

to be retained longest: But if there are but two arguments, to place the stronger first, and then the weaker; and after that to return again to the former, and insist principally upon that. But this must be left to the prudence of the speaker, and the nature of the subject. Though to begin with the strongest, and so gradually descend to the weakest, can never be proper, for the reason last mentioned. Nor ought arguments to be crowded too close upon one another; for that takes off from their force, as it breaks in upon the attention of the hearers, and does not leave them sufficient time duly to consider them. Nor indeed should more be used than are necessary; because the fewer they are, the more easily they are remembered. And the observation of a great master of eloquence upon this subject is certainly very just, that *arguments ought rather to be weighed than numbered.*

CHAP. V. Of Confutation.

THE forms of reasoning here are the same as have been already explained under *confirmation*. *Confutation*, however, is often the more difficult task; because he who is to prove a thing comes usually prepared; but he who is to confute it is frequently left to a sudden answer. For which reason, in *judicial* cases, Quintilian says, "It is as much easier to accuse than defend, as it is to make a wound than to heal it." Therefore, not only a good judgment, but a readiness of thought also, seems necessary for this province. But, in all disputes, it is of the greatest consequence to observe where the stress of the controversy lies. For without attending to this, persons may cavil about different matters without understanding each other, or deciding any thing. And in confutation, what the adversary has advanced ought carefully to be considered, and in what manner he has expressed himself. As to the things themselves, whether they immediately relate to the matter in dispute, or are foreign to it. Those things that are foreign to the subject may either be past over in silence, or in a very few words shown to be insignificant. And there ought likewise to be a distinction made between such things as relate to the subject, according to their importance. Those that appear to have no great weight should be slightly remarked. For to insist largely upon such matters is both tiresome to the hearers, and apt to bring the judgment of the speaker into question. And therefore things of that nature are generally better turned off with an air of neglect, a pungent question, or an agreeable jest, than confuted by a serious and laboured answer. But those things, which relate to the merits of the cause, may be confuted either by *contradicting* them, or by showing some *mistake* in the reasoning, or their *invalidity* when granted.

Things may be *contradicted* several ways. What is apparently false may be expressly *denied*. Thus Cicero in his defence of Cluentius: "When the accuser had said, that the man fell down dead after he had drunk off his cup, denies that he died that day." And things which the adversary cannot prove, may likewise be denied. Of which we have also an instance in Cicero, who first upbraids Mark Antony as guilty of a breach not only of good breeding, but likewise of friendship, for reading publicly a private letter he had sent him.

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Forms of
confutation
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Disposition. And then adds, "But what will you say now, if I should deny that ever I sent you that letter? How will you prove it? By the hand-writing? In which I confess you have a peculiar skill, and have found the benefit of it. But how can you make it out? For it is in my secretary's hand. I cannot but envy your master who had so great a reward for teaching you to understand just nothing. For what can be more unbecoming not only an orator, but even a man, than for any one to offer such things, which if the adversary denies, he has nothing more to say?" It is an handsome way of contradicting a thing, by showing that the adversary himself maintained the contrary. So when Oppius was charged with defrauding the soldiers of their provisions, Cicero refutes it, by proving, that the same persons charged Oppius with a design to corrupt the army by his liberality. An adversary is never more effectually silenced than when you can fasten contradictions upon him; for this is stabbing him with his own weapon. Sometimes a thing is not in express terms denied, but represented to be utterly incredible. And this method exposes the adversary more than a bare denial. So when some persons reproached Cicero with cowardice, and a shameful fear of death, he recites their reasons in such a manner, that any one would be inclined to think the charge entirely false. "Was it becoming me (says he) to expect death with that composedness of mind as some have imagined? Well, and did I then avoid it? Nay, was there any thing in the world that I could apprehend more desirable? Or when I had done the greatest things in such a crowd of ill minded persons about me, do you think banishment and death were not always in my view, and continually sounding in my ears as my certain fate, while I was so employed? Was life desirable when all my friends were in such sorrow, and myself in so great distress, deprived of all the gifts both of nature and fortune? Was I so unexperienced, so ignorant, so void of reason and prudence? Had I never seen nor heard any thing in my whole life? Did all I had read and studied avail nothing? What! did not I know that life is short, but the glory of generous actions permanent? When death is appointed for all, does it not seem eligible, that life, which must be wrested from us, should rather be freely devoted to the service of our country, than reserved to be worn out by the decays of nature? Was not I sensible, there has been this controversy among the wisest men, that some say, the minds of men and their consciences utterly perish at death; and others, that the minds of wise and brave men are then in their greatest strength and vigour, when they are set free from the body? The first state is not greatly to be dreaded, to be void of sense: but the other, of enjoying larger capacities, is greatly to be desired. Therefore, since I always aimed at dignity, and thought nothing was worth living for without it; how should I, who am past the consulship, and did so great things in it, be afraid to die?" Thus far Cicero. There is likewise an ironical way of contradicting a thing, by retorting that and other things of the like nature upon the adverse party. Thus Cicero, in his oration against Vatinius, says: "You have objected to me, that I defended Cornelius, my old friend, and your acquaintance. But pray why should I not have defended him? Has Cornelius car-

Disposition. ried any law contrary to the omens? Has he violated any law? Has he assaulted the consul? Did he take possession of a temple by force of arms? Did he drive away the tribune, who opposed the passing a law? Has he thrown contempt upon religion? Has he plundered the treasury? Has he pillaged the state? No, these, all these, are your doings." Such an unexpected return is sometimes of great service to abate the confidence of an adversary.

A second way of confutation is, by observing some *flaw* in the reasoning of the adverse party. We shall endeavour to illustrate this from the several kinds of reasoning treated of before under *confirmation*. And first, as to syllogisms; they may be refuted, either by showing some mistake in the premises, or that the conclusion is not justly deduced from them. So when the Clodian party contended, that Milo ought to suffer death for this reason, Because he had confessed that he had killed Clodius; that argument, reduced to a syllogism, would stand thus:

He who confesses he has killed another, ought not to be allowed to see the light.

But Milo confesses this.

Therefore he ought not to live.

Now the force of this argument lies in the major or first proposition; which Cicero refutes, by proving, that the Roman people had already determined contrary to what is there asserted: "In what city (says he) do these men dispute after this weak manner? In that wherein the first capital trial was in the case of the brave Horatius, who, before the city enjoyed perfect freedom, was saved by the suffrages of the Roman people, though he confessed that he killed his sister with his own hand." But when Cicero accused Verres for mal-administration in his government of Sicily, Hortensius, who defended him, being sensible the allegations brought against him could not be denied, had no other way left to bring him off, but by pleading his military virtues in abatement, which at that time were much wanted, and very serviceable to the state. The form of the argument was this:

That the Romans then wanted good generals.

That Verres was such.

And consequently, that it was for the interest of the public that he should not be condemned.

But Cicero, who knew his design, states the argument for him in his charge; and then answers it by denying the consequence, since the crimes of Verres were of so heinous a nature, that he ought by no means to be pardoned on the account of any other qualifications: Though indeed he afterwards refutes the minor or second proposition, and shows that he had not merited the character of a good general. Enthymems may be refuted, either by showing that the antecedent is false, or the consequent not justly inferred from it. As thus, with respect to the former case:

A strict adherence to virtue has often proved detrimental.

Therefore virtue ought not constantly to be embraced.

Here the antecedent may be denied. For virtue is always beneficial to those who strictly adhere to it, both in the present satisfaction it affords them, and the fu-

Disposition. ture rewards they may certainly expect from it. And as to the latter case, in this manner :

She is a mother.

Therefore she loves her children.

Now as the certainty of that inference depends upon this general assertion, That all mothers love their children, which is not true, the mistake of the reasoning may be shown from the instance of Medea and others, who destroyed their own children. As to *induction* and *example*, by which the truth or equity of a thing is proved from its likeness to one or more other things; the reasoning in either is invalid, if the things so compared can be shown not to have that similitude or agreement on which the inference is founded. One instance therefore may serve for both. As when Cicero, after the death of Cæsar, pleaded for the continuance of his laws, but not of those which were made afterwards by Mark Antony : Because, though both were in themselves invalid, and impositions upon the public liberty; yet some of Cæsar's were useful, and others could not be set aside without disturbance to the state, and injuring particular persons; but those of Antony were all detrimental to the public.

The last method of *confutation* before-mentioned was, when the orator does in some sense *grant* the adversary his argument, and at the same time shows its *invalidity*. And this is done by a variety of ways, according to the different nature of the subject. Sometimes he allows what was said may be true; but pleads, that what he contends for is necessary. This was the method by which Hortensius proposed to bring off Verres, as we have already shown from Cicero, whose words are these, addressing himself to the judges : "What shall I do? which way shall I bring in my accusation? where shall I turn myself? for the character of a brave general is placed like a wall against all the attacks I can make. I know the place, I perceive where Hortensius intends to display himself. He will recount the hazards of war, the necessities of the state, the scarcity of commanders; and then he will intreat you, and do his utmost to persuade you, not to suffer the Roman people to be deprived of such a commander upon the testimony of the Sicilians, nor the glory of his arms to be sullied by a charge of avarice." At other times the orator pleads, that although the contrary opinion may seem to be attended with advantage, yet that his own is more just or honourable. Such was the case of Regulus, when his friends endeavoured to prevail with him to continue at Rome, and not return to Carthage, where he knew he must undergo a cruel death. But as this could not be done without violating his oath, he refused to hearken to their persuasions. Another way of confutation is, by retorting upon the adversary his own argument. Thus Cicero, in his defence of Ligarius, says : "You have, Tubero, that which is most desirable to an accuser, the confession of the accused party; but yet such a confession, that he was on the same side that you, Tubero, chose yourself, and your father too, a man worthy of the highest praise. Wherefore, if there was any crime in this, you ought first to confess your own before you attempt to fasten any upon Ligarius." The orator takes this advantage where an argument proves

too much, that is, more than the person designed it for, who made use of it. Not much unlike this is what they call *inversion*, by which the orator shows, that the reasons offered by the opposite party make for him. So when Cæcilius urged, that the province of accusing Verres ought to be granted to him, and not to Cicero, because he had been his treasurer in Sicily at the time those crimes were committed with which he was charged, and consequently knew most of that affair; Cicero turns the argument upon him, and shows, for that very reason he was the most unfit of any man to be intrusted with his prosecution; since having been concerned with him in his crimes, he would certainly do all in his power to conceal or lessen them. Again, sometimes the charge is acknowledged, but the crime shifted off to another. Thus, when Sextius was accused of sedition, because he had got together a body of gladiators, and brought them into the forum, where a warm engagement happened between them and Clodius's faction; Cicero owns the fact, but charges the crime of sedition upon Clodius's party in being the aggressors. Another method made use of for the same purpose is, to alleviate the charge, and take off the force of it, by showing, that the thing was not done with that intention which the adversary insinuates. Thus Cicero, in his defence of king Dejotarus, owns he had raised some forces, though not to invade the Roman territories, as had been alleged, but only to defend his own borders, and send aid to the Roman generals.

We have hitherto been speaking of the methods of confutation used by orators, in answering those arguments which are brought by the contrary party. But sometimes they raise such objections themselves to what they have said, as they imagine may be made by others; which they afterwards answer, the better to induce their hearers to think, that nothing considerable can be offered against what they have advanced, but what will admit of an easy reply. Thus, when Cicero, at the request of the Sicilians, had undertaken the accusation of Verres, it came under debate, whether he, or Cæcilius, who had been Verres's quaestor in Sicily, should be admitted to that province. Cicero, therefore, in order to set him aside, among other arguments, shows his incapacity for such an undertaking, and for that end recounts at large the qualifications necessary for an orator. Which he represents to be so many and great, that he thought it necessary to start the following objection to what he had himself said upon that subject. "But you will say perhaps, Have you all these qualifications?" To which he thus replies : "I wish I had; but it has been my constant study from my youth to gain them. And if, from their greatness and difficulty, I have not been able to attain them, who have done nothing else through my whole life; how far, do you imagine, you must be from it, who never thought of them before; and even now, when you are entering upon them, have no apprehension, what, and how great, they are?" This is an effectual way of defeating an adversary, when the objection is well founded, and clearly answered. But we shall have occasion to consider this matter more largely hereafter, under the figure *prolepsis*, to which it properly relates.

CHAP. VI. *Of the Conclusion.*

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The conclusion is a recapitulation and address to the passions.

RHETORICIANS make the *conclusion* of a discourse to consist of two parts: *recapitulation*, and an *address to the passions*.

1. *Recapitulation* is a summary account of what the speaker has before offered in maintenance of his subject; and is designed both to refresh the memory of the hearers, and to bring the principal arguments together into a narrow compass, that they may appear in a stronger light. Now there are several things necessary to a good repetition.

And first, it must be short and concise; since it is designed to refresh the memory, and not to burden it. For this end, therefore, the chief things only are to be touched upon; those on which the cause principally depends, and which the orator is most desirous should be regarded by his hearers. Now these are, The general heads of the discourse, with the main arguments brought to support them. But either to insist particularly upon every minute circumstance, or to enlarge upon those heads which it may be thought proper to mention, carries in it not so much the appearance of a repetition, as of a new discourse.

Again, it is convenient in a repetition to recite things in the same order in which they were at first laid down. By this means the hearers will be enabled much better to keep pace with the speaker as he goes along; and if they happen to have forgot any thing, they will the more readily recal it. And besides, this method appears most simple and open, when the speaker reviews what he has said in the same manner it was before delivered, and sets it in the clearest light for others to judge of it. But though a repetition contains only the same things which had been more largely treated of before; yet it is not necessary they should be expressed in the same words. Nay, this would many times be tiresome and unpleasant to the hearers; whereas a variety of expression is grateful, provided the sense be the same. Besides, every thing ought now to be represented in the strongest terms, and in so lively a manner, as may at the same time both entertain the audience, and make the deepest impression upon their minds. We have a very exact and accurate example of repetition in Cicero's oration for Quintus. Cicero was then a young man, and seems to have kept more closely to the rules of art, than afterwards, when by use and practice he had gained a greater freedom of speaking. We formerly cited the partition of this speech, upon another occasion, which runs thus: "We deny, Sextus Nevius, that you were put into the possession of the estate of P. Quintus, by the prætor's edict. This is the dispute between us. I will therefore show, first, that you had no just cause to apply to the prætor for the possession of the estate of P. Quintus; then, that you could not possess it by the edict; and lastly, that you did not possess it. When I have proved these three things, I will conclude." Now Cicero begins his conclusion with a repetition of those three heads, and a summary account of the several arguments he made use of under each of them. But they are too long to be here exhibited. In his oration for the Manilian law, his repetition is very short. He proposed in the partition to speak to three

things: The nature of the war against king Mithridates, the greatness of it, and what sort of general was proper to be intrusted with it. And when he has gone through each of these heads, and treated upon them very largely, he reduces the substance of what he has said to this general and short account: "Since therefore the war is so necessary, that it cannot be neglected; and so great, that it requires a very careful management; and you can intrust it with a general of admirable skill in military affairs, of singular courage, the greatest authority, and eminent success: do you doubt to make use of this so great a blessing, conferred and bestowed upon you by heaven, for the preservation and enlargement of the Roman state?" Indeed this repetition is made by Cicero, before he proceeds to the confutation; and not at the end of his discourse, where it is usually longer and more particular: however, this may serve to show the nature of such a recital.

But sometimes a repetition is made, by running a comparison between the speaker's own arguments and those of the adverse party; and placing them in opposition to each other. And this method Cicero takes in the conclusion of his third oration upon the Agrarian law. And here sometimes the orator takes occasion to find fault with his adversary's management, in these and such like expressions: "This part he has entirely dropt. To that he has given an invidious turn, or a false colouring. He leaves arguments, and flies to intreaties; and not without good reason, if we consider the weakness of his cause."

But when the discourse is very long, and the arguments insisted on have been many, to prevent the hearers growing out of patience by a more particular recital, the orator sometimes only just mentions such things, which he thinks of least consequence, by saying, that he omits or passes over them, till he comes to what is of greater moment, which he represents more fully. This method Cicero has taken in his defence of Cluentius; where, having run over several lesser heads in the manner now described, he then alters his expression, and introduces what was of more importance, by saying, "What I first complain of, is that wickedness, which is now discovered." And so he proceeds more particularly to recite those things which immediately related to Cluentius. And this is what the writers upon this art call *preterition*. But this much may serve for repetition or recapitulation.

2. We now proceed to the other part of the conclusion, which consists in an *address to the passions*. Indeed the orator sometimes endeavours occasionally to work upon the passions of his hearers in other parts of his discourse, but more especially in the conclusion, where he is warmest himself, and labours to make them so. For the main design of the introduction is to conciliate the hearers, and gain their attention; of the narration, proposition, and confirmation, to inform them; and of the conclusion, to move them. And therefore, to use Quintilian's words, "Here all the springs of eloquence are to be opened. It is here we secure the minds of the hearers, if what went before was well managed. Now we are past the rocks and shallows, all the sails may be hoisted. And as the greatest part of the conclusion consists in illustration, the most pompous language and strongest figures have

Disposition. place here." Now the passions, to which the orator more particularly addresses, differ according to the nature of the discourse. In demonstrative orations, when laudatory,—love, admiration, and emulation, are usually excited; but in invectives,—hatred, envy, and contempt. In deliberative subjects, either the hope of gratifying some desire is set in view, or the fear of some impending evil. And in judicial discourses, almost all the passions have place, but more especially resentment and pity; insomuch that most of the ancient rhetoricians mention only these two. But having treated upon the nature of the passions, and the methods suited both to excite and allay them, in a former chapter, we shall at present only add a few general observations, which may not be improper in this place, where the skill of the orator in addressing to them is more especially required.

The orator will observe what circumstances either of things, or persons, or both, will furnish him with motives proper to apply to those passions he desires to excite in the minds of his hearers. Thus Cicero, in his orations for Plancus and Sylla, moves his hearers from the circumstances of the men; but in his accusation of Verres, very frequently from the barbarity and horrid nature of his crimes; and from both, in his defence of Quintius.

But the same passion may be excited by very different methods. This is plain from the writings of those Roman satyrists which are yet extant; for they have all the same design, and that is to engage men to a love of virtue, and hatred of vice: but their manner is very different, suited to the genius of each writer. Horace endeavours to recommend virtue, by laughing vice out of countenance; Persius moves us to an abhorrence and detestation of vice, with the gravity and severity of a philosopher; and Juvenal, by open and vehement invectives. So orators make use of all these methods in exciting the passions; as may be seen by their discourses, and particularly those of Cicero. But it is not convenient to dwell long upon the same passion. For the image thus wrought up in the minds of the hearers does not last a great while, but they soon return to reflection. When the emotion, therefore, is once carried as high as it well can be, they should be left under its influence, and the speaker proceed to some new matter, before it declines again.

Moreover, orators sometimes endeavour to raise contrary passions to each other, as they are concerned for opposite parties. So the accuser excites anger and resentment, but the defendant pity and compassion. At other times, one thinks it sufficient to allay and take off that passion which the other has raised, and bring the hearers to a calm and sedate consideration of the matter before them.

But this especially is to be regarded, that the orator express the same passion himself with which he endeavours to affect others; and that not only in his action and voice, but likewise in his language: and therefore his words, and manner of expression, should be suited to that perturbation and disorder of mind which he designs to represent. However, a decency and propriety of character is always carefully to be observed; for, as Cicero very well remarks, "A ne-

Disposition. glect of this is not only very culpable in life, but likewise in discourse. Nor do the same things equally become every speaker, or every audience; nor every time, and every place." And therefore he greatly commends that painter, who, designing to represent in a picture the sacrifice of Iphigenia, Agamemnon's daughter, drew Calchas the priest with a sad countenance; Ulysses, her father's great friend, more dejected; and her uncle Menelaus, most disconsolate; but threw a veil over the face of Agamemnon himself, as being unable to express that excess of sorrow which he thought was proper to appear in his countenance. And this justness of character is admirably well observed by Cicero himself, in his defence of Milo; for as Milo was always known to be a man of the greatest resolution, and most undaunted courage, it was very improper to introduce him (as the usual method then was in capital cases) moving pity, and begging for mercy. Cicero therefore takes this part upon himself; and what he could not do with any propriety in the person of Milo, he performs in his own, and thus addresses the judges: "What remains, but that I intreat and beseech you, that you would show that compassion to this brave man, for which he himself does not solicit, but I, against his inclination, earnestly implore and request. Do not be less inclined to acquit him, if in this our common sorrow, you see no tear fall from Milo's eyes; but perceive in him the same countenance, voice, and language, as at other times, steady and unmoved. Nay, I know not whether for this reason you ought not much sooner to favour him: For if, in the contests of gladiators (persons of the lowest condition and fortune in life), we are wont to be displeased with the timorous and suppliant, and those who beg for their life; but interpose in favour of the brave and courageous, and such as expose themselves to death; and we show more compassion to those who do not sue for it, than to those who do: with how much greater reason ought we to act in the same manner towards the bravest of our fellow-citizens?" And as these words were agreeable to his own character, while soliciting in behalf of another; so, immediately after, he introduces Milo speaking like himself, with a generous and undaunted air: "These words of Milo (says he) quite sink and dispirit me, which I daily hear from him. Farewel, farewel, my fellow citizens, farewel! may you be happy, flourish, and prosper; may this renowned city be preserved, my most dear country, however it has treated me; may it continue in peace, though I cannot continue in it, to whom it owes its peace. I will retire; I will be gone."

But as persons are commonly more affected with what they see than with what they hear, orators sometimes call in the assistance of that sense in moving the passions. For this reason it was usual among the Romans, in judicial cases, for accused persons to appear with a dejected air and a sordid garb, attended by their parents, children, or other relations and friends, with the like dress and aspect; as likewise to show their scars, wounds, bloody garments, and other things of the like nature, in open court. So when, upon the death of Cæsar, Mark Antony harangued the populace, he at the same time exposed to their view the garment

Disposition. garment in which he was stabbed, fixed upon a pole; at which sight they were so enraged, that immediately they ran with lighted torches to set fire to the houses of the conspirators. But this custom at last became so common, and was sometimes so ill conducted, that the force of it was greatly abated, as we learn from Quintilian. However, if the Romans proceeded to an excess on the one hand, the strictness of the Areopagites at Athens may perhaps be thought too rigid on the other; for in that court, if the orator began to say any thing which was moving, an officer immediately stood up, and bade him be silent. There is certainly a medium between these two extremes, which is sometimes not only useful, but even necessary: for, as Quintilian very justly says, "It is necessary to apply to the passions, when those things which are true, just, and of common benefit, cannot be come at any other way."

CHAP. VII. *Of Digression, Transition, and Amplification.*

³⁸ *Digression, transition, and amplification, defined and explained.* THE number, order, and nature of the parts which constitute a complete and regular oration, we have endeavoured to explain in several preceding chapters. But there are two or three things yet remaining, very necessary to be known by an orator, which seem most properly to come under the second branch of his art.—And these are, *Digression*, *Transition*, and *Amplification*.

I. *Digression*, as defined by Quintilian, is, "A going off from the subject we are upon to some different thing, which may however be of service to it." We have a very beautiful instance of this in Cicero's defence of Cælius, who was accused of having first borrowed money of Clodia, and then engaging her servants to poison her. Now, as the proof of the fact depended upon several circumstances, the orator examines them separately; and shows them to be all highly improbable. "How (says he) was the design of this poison laid? Whence came it? how did they get it? by whose assistance, to whom, or where, was it delivered?" Now to the first of these queries he makes the accuser give this answer: "They say Cælius had it at home, and tried the force of it upon a slave provided on purpose, whose sudden death proved the strength of the poison." Now as Cicero represents the whole charge against Cælius as a fiction of Clodia, invented out of revenge for some slights he had put upon her; to make this the more probable, he insinuates that she had poisoned her husband, and takes this opportunity to hint it, that he might show how easy it was for her to charge another with poisoning a servant, who had done the same to her own husband. But not contented with this, he steps out of his way, and introduces some of the last words of her husband Metellus, to render the fact more barbarous and shocking, from the admirable character of the man. "O immortal gods! why do you sometimes wink at the greatest crimes of mankind, or delay the punishment of them to futurity? For I saw, I myself saw (and it was the most doleful scene of my whole life) when Q. Metellus was taken from the bosom of his country; and when he, who thought himself born to be serviceable to this state, within three days after he had appeared with such advantage

Disposition. in the senate, in the forum, and everywhere in public, was snatched from us in the flower of his age, and prime of his strength and vigour. At which time, when he was about to expire, and his mind had lost the sense of other things, still retaining a concern for the public, he looked upon me, as I was all in tears, and intimated in broken and dying words, how great a storm hung over the city and threatened the whole state; often striking the wall which separated his house from that of Quintus Catulus, and frequently calling both upon him and me, and seeming to grieve not so much at the approach of his own death, as that both his country and I should be deprived of his assistance. Had he not been wickedly taken off on a sudden, how would he after his consulship have withstood the fury of his kinsman Publius Clodius, who, while in that office, threatened, in the hearing of the senate, to kill him with his own hand, when he first began to break out? And will this woman dare to come out of those doors, and talk of the force of poison? will not she fear, lest the house itself should speak the villany? will not she dread the conscious walls, nor that sad and mournful night? But I return to the accusation." And then he proceeds to consider and refute the several circumstances of the accusation. All this was no part of his argument; but having mentioned the charge of poison, he immediately takes occasion to introduce it, in order to excite the indignation of the hearers against Clodia, and invalidate the prosecution as coming from a person of her character. *Digression* cannot properly be said to be a necessary part of a discourse; but it may sometimes be very convenient, and that upon several accounts.

As first, where a subject is of itself flat and dry, or requires close attention, it is of use to relieve and unbend the mind by something agreeable and entertaining. For which reason Quintilian observes, that the orators of his time generally made an excursion in their harangues upon some pleasing topic, between the narration and the proof. But he condemns the practice, as too general; for while they seemed to think it necessary, it obliged them sometimes to bring in things trifling and foreign to the purpose. Besides, a digression is confined to no one part of a discourse, but may come in anywhere, as occasion offers; provided it fall in naturally with the subject, and be made some way subservient to it. We never meet with it in Cicero, without some evident and good reason. So in his prosecution of Verres for his barbarous and inhuman outrages against the Sicilians, he takes an occasion to launch out in a beautiful description of the island, and to recount the advantages which accrued from it to the Romans. His subject did not necessarily lead him to this, but his view in it was to heighten and aggravate the charge against Verres.

Again, as a *digression* ought not to be made without sufficient reason, so neither should it be too frequent. And he who never does it but where it is proper and useful, will not often see occasion for it. Frequently to leave the subject, and go off to other things, breaks the thread of the discourse, and is apt to introduce confusion. Indeed some kinds of writing admit of a more frequent use of digressions than others. In history they are often very serviceable. For as that

Disposition. that consists of a series of facts, and a long continued narrative without variety, is apt to grow dull and tedious; it is necessary at proper distances to throw in something entertaining, in order to enliven it, and keep up the attention. And accordingly we find the best historians often embellish their writings with descriptions of cities, rivers, and countries, as likewise with the speeches of eminent persons upon important occasions, and other ornaments, to render them the more pleasing and delightful. Poets take a still greater liberty in this respect: for as their principal view is most commonly to please, they do not attend so closely to connection; but as an image offers itself, which may be agreeably wrought up, they bring it in, and go off more frequently to different things, than other writers.

Another property of a *digression* is, that it ought not to be too long, lest the hearers forget what preceded, before the speaker returns again to his subject.

For a digression being no principal part of a discourse, nor of any further use than as it serves some way or other to enforce or illustrate the main subject; it cannot answer this end, if it be carried to such a length, as to cause that either to be forgotten or neglected. And every one's memory will not serve him to connect together two parts of a discourse, which lie at a wide distance from each other. The better therefore to guard against this, it is not unusual with orators, before they enter upon a digression of any considerable length, to prepare their hearers, by giving them notice of it, and sometimes desiring leave to divert a little from the subject. And so likewise at the conclusion they introduce the subject again by a short transition. Thus Cicero in the example cited above, when he has finished his digression concerning the death of Metellus, proceeds to his subject again with these words: "But I return to the accusation."

Indeed we find orators sometimes, when sore pressed, and the cause will not bear a close scrutiny, artfully run into digressions with a design to divert the attention of the hearers from the subject, and turn them to a different view. And in such cases, as they endeavour to be unobserved, so they do it tacitly without any transition or intimation of their design; their business being only to get clear of a difficulty, till they have an opportunity of entering upon some fresh topic.

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Transitions
often used
on various
occasions.

II. *Transitions* are often used not only after a digression, but likewise upon other occasions. A transition is, "A form of speech, by which the speaker in a few words tells his hearers both what he has said already, and what he next designs to say." Where a discourse consists of several parts, this is often very proper in passing from one to another, especially when the parts are of a considerable length; for it assists the hearers to carry on the series of the discourse in their mind, which is a great advantage to the memory. It is likewise a great relief to the attention, to be told when an argument is finished, and what is to be expected next. And therefore we meet with it very frequently in history. But we consider it at present only as made use of by orators. Cicero, in his second oration against Catiline, who had then left Rome, having at large described his conduct and designs, he adds: "But why do I talk so long concern-

Disposition. ing one enemy, and such an one; who owns himself an enemy, and whom I do not fear, since, what I always desired, there is now a wall between us; and say nothing of those, who conceal themselves, who remain at Rome, and among us." And then he proceeds to give an account of the other conspirators.

But sometimes, in passing from one thing to another, a general hint of it is thought sufficient to prepare the hearers, without particularly specifying what has been said, or is next to follow. Thus Cicero in his second Philippic says, "But those things are old, this is yet fresh." And again: "But I have insisted too long upon trifles, let us come to things of greater moment." And at other times, for greater brevity, the transition is imperfect, and mention made only of the following head, without any intimation of what has been said already. As in Cicero's defence of Muræna, where he says: "I must now proceed to the third part of my oration concerning the charge of bribery." And soon after: "I come now to Cato, who is the support and strength of this charge."

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Amplification
defined and
explained.

III. The third and last head is, *Amplification*. Now by amplification is meant, not barely a method of enlarging upon a thing; but so to represent it in the fullest and most comprehensive view, as that it may in the liveliest manner strike the mind and influence the passions. Cicero, speaking of this, calls it *the greatest commendation of eloquence*; and observes, "that it consists not only in magnifying and heightening a thing, but likewise in extenuating and lessening it." But though it consists of these two parts, and may be applied either way; yet to amplify, is not to set things in a false light, but to paint them in their just proportion and proper colours, suitable to their nature and qualities. Rhetoricians have observed several ways of doing this.

One is to ascend from a particular thing to a general. Thus Cicero, in his defence of Archias, having commended him as an excellent poet, and likewise observed, that all the liberal arts have a connection with each other, and a mutual relation between them, in order to raise a just esteem of him in the minds of his hearers, takes occasion to say many things in praise of polite literature in general, and the great advantages that may be received from it. "You will ask me, (says he), why we are so delighted with this man? Because he supplies us with those things, which both refresh our minds after the noise of the forum, and delight our ears when wearied with contention. Do you think we could either be furnished with matter for such a variety of subjects, if we did not cultivate our minds with learning; or bear such a constant fatigue, without affording them that refreshment? I own I have always pursued these studies; let those be ashamed, who have so given up themselves to learning, as neither to be able to convert it to any common benefit, nor discover it in public. But why should it shame me, who have so lived for many years, that no advantage or ease has ever diverted me, no pleasure allured me, nor sleep retarded me, from this pursuit. Who then can blame me, or who can justly be displeased with me, if I have employed that time in reviewing these studies, which has been spent by others in managing their affairs, in the celebration of festivals, or other diversions, in refreshments of mind and body,

Disposition. body, in unseasonable banquets, in dice, or tennis? And this ought the rather to be allowed me, because my ability as an orator has been improved by those pursuits, which, such as it is, was never wanting to assist my friends. And if it be esteemed but small, yet I am sensible from what spring I must draw those things which are of the greatest importance." With more to the same purpose; from which he draws this inference: "Shall I not therefore love this man? shall I not admire him? shall I not by all means defend him?"

A contrary method to the former is, to descend from a general to a particular. As if any one, while speaking in commendation of eloquence, should illustrate what he says from the example of Cicero, and show the great services he did his country, and the honours he gained to himself, by his admirable skill in oratory. Our common way of judging of the nature of things is from what we observe in particular instances, by which we form general notions concerning them. When therefore we consider the character of Cicero, and the figure he made in the world, it leads us to conclude, there must be something very admirable in that art by which he became so celebrated. And this method he has taken himself in his oration for the Manilian law, where having first intimated the scarcity of good generals at that time among the Romans, he then describes the virtues of a complete commander as a proof of it, and shows how many and great qualifications are necessary to form such a character, as courage, prudence, experience, and success: all which he afterwards applies to Pompey.

A third method is by an enumeration of parts. So when Cicero, upon the defeat of Mark Antony before Mutina, proposed that a funeral monument should be erected in honour of the soldiers who were killed in that battle, as a comfort to their surviving relations; he does it in this way, to give it the greater weight: "Since (says he) the tribute of glory is paid to the best and most valiant citizens by the honour of a monument, let us thus comfort their relations, who will receive the greatest consolation in this manner: their parents, who produced such brave defenders of the state; their children, who will enjoy these domestic examples of fortitude; their wives, for the loss of such husbands, whom it will be more fitting to extol than lament; their brethren, who will hope to resemble them no less in their virtues than their aspect. And I wish we may be able to remove the grief of all these by our resolutions." Such representations greatly enlarge the image of a thing, and afford the mind a much clearer view of it than if it were contracted into one single proposition.

Again, another method not much unlike the former is, when any thing is illustrated from a variety of causes. Thus Cicero justifies his behaviour in retiring, and not opposing his enemies, when they spirited up the mob in order to banish him, from the following reasons, which at that time determined him to such a conduct: "When (says he) unless I was given up, so many armed fleets seemed ready to attack this single ship of the state, tossed with the tempests of seditions and discords, and the senate was now removed from the helm; when banishment, murder, and outrage, were threatened; when some, from an apprehension of

their own danger, would not defend me; others were incited by an inveterate hatred to all good men, others thought I stood in the way, others took this opportunity to express their resentment, others envied the peace and tranquillity of the state; and upon all these accounts I was particularly struck at: should I have chosen rather to oppose them (I will not say to my own certain destruction, but to the greatest danger both of you and your children), than alone to submit to and undergo what threatened us all in common?" Such a number of reasons brought together, must set a thing in a very strong and clear light.

The like may be said of a number and variety of effects. Thus Cicero describes the force and excellence of oratory from its great and surprising effects, when he says, "Nothing seems to be more excellent, than by discourse to draw the attention of a whole assembly, delight them, and sway their inclinations different ways at pleasure. This, in every free state, and especially in times of peace and tranquillity, has been always in the highest esteem and reputation. For what is either so admirable, as for one only, or a very few, out of a vast multitude, to be able to do that which all have a natural power of doing? or so delightful to hear, as a judicious and solid discourse in florid and polite language? or so powerful and grand, as to influence the populace, the judges, the senate, by the charms of eloquence? Nay, what is so noble, so generous, so munificent, as to afford aid to supplicants, to support the afflicted, give safety, deliver from dangers, and preserve from exile? Or what is so necessary as to be always furnished with arms to guard yourself, assert your right, or repel injuries? And, not to confine our thoughts wholly to the courts of justice or the senate, what is there in the arts of peace more agreeable and entertaining than good language and a fine way of speaking? For it is this especially wherein we excel other animals, that we can discourse together, and convey our thoughts to each other by words. Who therefore would not esteem, and in a particular manner endeavour to surpass others in that wherein mankind principally excels brute beasts? But to proceed to its chief advantages: What else would have drawn men into societies, or taken them off from a wild and savage life, and soften them into a polite and civilized behaviour; or, when settled in communities, have restrained them by laws?" Who but, after such a description, must conceive the strongest passion for an art attended with so many great and good effects?

A thing may likewise be illustrated by its opposite. So the blessings and advantages of peace may be recommended from the miseries and calamities of war; and thus Cicero endeavours to throw contempt upon Catiline and his party, by comparing them with the contrary side: "But if, omitting all these things with which we abound, and they want, the senate, the knights, the populace, the city, treasury, revenues, all Italy, the provinces, and foreign nations; if, I say, omitting these things, we compare the causes themselves in which each side is engaged, we may learn from thence how despicable they are.—For on this side modesty is engaged, on that impudence; on this chastity, on that lewdness; on this integrity, on that fraud; on this piety, on that profaneness; on this con-

Elocution. constancy, on that fury; on this honour, on that baseness; on this moderation, on that unbridled passion: In a word, equity, temperance, fortitude, prudence, and all virtues, contend with injustice, luxury, cowardice, rashness, and all vices; plenty with want; reason with folly; sobriety with madness; and, lastly, good hope with despair. In such a contest, did men desert us, would not heaven ordain that so many and so great vices should be defeated by these most excellent virtues?"

Gradation is another beautiful way of doing this. So when Cicero would aggravate the cruelty and barbarity of Verres for crucifying a Roman citizen, which was a sort of punishment only inflicted upon slaves, he chooses this way of doing it. "It is a crime (says he) to bind a Roman citizen, wickedness to whip him, and a sort of parricide to kill him; what then must I call it to crucify him? No name can sufficiently express such a villany." And the images of things may be thus heightened, either by ascending, as in this instance; or descending, as in that which follows, re-

Elocution. lating to the same action of Verres: "Was I not to complain of or bewail these things to Roman citizens, nor the friends of our state, nor those who had heard of the Roman name; nay, if not to men, but beasts; or, to go yet further, if in the most desert wilderness, to stones and rocks; even all mute and inanimate creatures would be moved by so great and heinous cruelty."

And, to name no more, facts may be amplified from their circumstances; as time, place, manner, event, and the like. But instances of this would carry us too far; and therefore we shall only add, that, as the design of *amplification* is not barely to prove or evince the truth of things, but also to adorn and illustrate them, it requires a florid and beautiful style, consisting of strong and emphatical words, flowing periods, harmonious numbers, lively tropes, and bright figures. But the consideration of these things come under the third part of oratory, upon which we are now to enter.

PART III. OF ELOCUTION.

ELOCUTION directs us to suit both the words and expressions of a discourse to the nature of the subject, or to speak with propriety and decency. This faculty is in one word called *eloquence*; and those persons who are possessed of it are therefore styled *eloquent*.

Elocution is twofold, general and particular. The former treats of the several properties and ornaments of language in common; the latter considers them as they are made use of to form different sorts of style.

I. GENERAL ELOCUTION.

THIS, according to rhetoricians, consists of three parts; *Elegance*, *Composition*, and *Dignity*. A discourse which has all these properties suitably adjusted, must, with respect to the language, be perfect in its kind, and delightful to the hearers.

CHAP. I. Of Elegance.

ELEGANCE consists in two things, *Purity* and *Perspicuity*: And both these, as well with respect to single words, as their construction in sentences. These properties in language give it the name of *elegant*, for a like reason that we call other things so which are clean and neat in their kind. But in the common use of our tongue, we are apt to confound *elegance* with *eloquence*; and say, *a discourse is elegant*, when we mean by the expression, that it has all the properties of fine language.

§ 1. Purity.

Purity explained and illustrated. By this we are to understand the choice of such words and phrases as are suited and agreeable to the use of the language in which we speak: And so grammarians reduce the faults they oppose to it to two sorts, which they call *barbarism* and *solecism*; the former of which respects single words, and the latter their construction. But we shall consider them jointly, and

in a manner different from grammarians; for with them all words are esteemed pure which are once adopted into a language, and authorized by use. And as to phrases, or forms of expression, they allow them all the same claim, which are agreeable to the analogy of the tongue. But in oratory, neither all words nor all expressions are so called which occur in language; but such only as come recommended by the authority of those who speak or write with accuracy and politeness. Indeed it is a common saying, *that we should think with the learned, and speak with the vulgar*. But the meaning of that expression is no more than that we should speak agreeably to the common usage of the tongue, that every one may understand us; and not choose such words or expressions as are either difficult to be understood, or may carry in them an appearance of affectation and singularity. But in order to set this matter in a clearer light, we shall here recount the principal things which vitiate the purity of language.

And first, it often happens, that such words and forms of speaking as were introduced by the learned are afterwards dropped by them as mean and sordid, from a seeming baseness contracted by vulgar use. For polite and elegant speakers distinguish themselves by their discourse, as persons of figure do by their garb; one being the dress of the mind, as the other is of the body. And hence it comes to pass, that both have their different fashions, which are often changed; and as the vulgar affect to imitate those above them in both, this frequently occasions an alteration when either becomes too trite and common. But beside these sordid words and expressions, which are rendered so by the use of the vulgar, there is another sort first introduced by them, which is carefully to be avoided by all those who are desirous to speak well. For the vulgar have their peculiar words and phrases, suited to their circumstances, and taken from such things as usually occur in their way of life. Thus in the old comedians, many things are spoken by servants, agreeable to their character, which would be

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Again, this is common to language with all other human productions, that it is in its own nature liable to a constant change and alteration. For, as Horace has justly observed,

All human works shall waste;
Then how can feeble words pretend to last.

Nothing could ever please all persons, or at least for any length of time. And there is nothing from which this can less be expected than language. For as the thoughts of men are exceedingly various, and words are the signs of their thoughts, they will be constantly inventing new signs to express them by, in order to convey their ideas with more clearness or greater beauty. If we look into the different ages of the Latin writers, what great alterations and changes do we find in their language? How few now understand the remaining fragments of the *twelve tables*? Nay, how many words do we meet with even in Plautus, the meaning of which has not yet been fixed with certainty by the skill of the best critics? And if we consider our own language, it will appear to have been in a manner entirely changed from what it was a few ages since. To mention no others, our celebrated Chaucer is to most persons now almost unintelligible, and wants an expounder. And even since our own memory, we cannot but have observed, that many words and expressions, which a few years ago were in common use, are now in a manner laid aside and antiquated; and that others have constantly succeeded, and daily do succeed, in their room. So true is that observation of the same poet:

Some words that have or else will feel decay
Shall be restor'd, and come again in play;
And words now fam'd shall not be fancied long;
They shall not please the ear, nor move the tongue:
As use shall these approve, and those condemn;
Use, the sole rule of speech, and judge supreme.

We must therefore no less abstain from antiquated or obsolete words and phrases, than from sordid ones. Though all old words are not to be thought antiquated. By the former we mean such as, though of an ancient standing, are not yet entirely disused nor their signification lost. And from the use of these we are not to be wholly debarred, especially when they appear more significant than any others we can fix upon. But as to phrases or expressions, greater caution seems still necessary: and such as are old should doubtless, if at all, be used more sparingly. The Latin tongue was brought to its greatest perfection in the reign of Augustus, or somewhat sooner; and he himself studied it very carefully. For, as Suetonius tells us, "He applied himself to eloquence, and the study of the liberal arts, from his childhood, with great diligence and labour. He chose a manner of speaking which was smooth and elegant: he avoided the ill savour, as he used to call it, of antiquated words; and he was wont to blame Tiberius for his affectation of them." In our own language, such words are to be esteemed antiquated, which the most polite persons have dropped, both in their discourse and writings; whose example

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But further: As on the one hand we must avoid obsolete words and phrases; so, on the other, we should refrain from new ones, or such whose use has not yet been sufficiently established, at least among those of the best taste. Words may be considered as new in two respects; either when they are first brought into a language, or when they are used in a new sense. As the former of these may sometimes leave us in the dark by not being understood, so the latter are most apt to mislead us; for when we hear a word that has been familiar to us, we are presently led to fix that idea to it with which it has usually been attended. And therefore, in both cases, some previous intimation may be necessary. Cicero, who perhaps enlarged the furniture of the Roman tongue more than any one person besides, appears always very cautious how he introduces any thing new, and generally gives notice of it when he attempts it, as appears in many instances scattered through his works. What bounds we are now to fix to the purity of the Latin tongue in the use of it, the learned are not well agreed. It is certain, our furniture is much less than when it was a living language, and therefore the greater liberty must of necessity be sometimes taken. So that their opinion seems not unadvisable, who direct us to make choice principally of what we are furnished with from the writers of the Augustan age; and, where we cannot be supplied from them, to make use of such authors as lived nearest to them, either before or since. And as to our own tongue, it is certainly prudent to be as careful how we admit any thing into it that is uncouth or disagreeable to its genius, as the ancient Romans were into theirs; for the perfection of a language does in a great measure consist in a certain analogy and harmony running through the whole, by which it may be capable of being brought to a standard.

But besides those things already mentioned, any mistake in the sense of words, or their construction, is opposed to purity. For to speak purely, is to speak correctly. And such is the nature of these faults in elocution, that they are often not so easy to be observed by hearing as by reading. Whence it is, that many persons are thought to speak better than they write; for while they are speaking, many slips and inaccuracies escape disregarded, which in reading would presently appear. And this is more especially the case of persons unacquainted with arts and literature; who, by the assistance of a lively fancy and flow of words, often speak with great ease and freedom, and by that means please the ear; when, at the same time, what they say, would not so well bear reading.

We shall only add, that a distinction ought likewise to be made between a poetic diction and that of prose writers. For poets in all languages have a sort of peculiar dialect, and take greater liberties, not only in their figures, but also in their choice and disposition of words; so that what is a beauty in them would often appear unnatural and affected in prose.

§ 2. Of Perspicuity.

PERSPICUITY, as well as purity, consists partly in *single words*, and partly in their *construction*.

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I. As to *single words*, those are generally clearest and best understood which are used in their proper sense. But it requires no small attention and skill to be well acquainted with the force and propriety of words; which ought to be duly regarded, since the perspicuity of a discourse depends so much upon it. Cæsar seems plainly to have been of this mind, when he tells us, "The foundation of eloquence consists in the choice of words." It may not be amiss, therefore, to lay down some few observations, by which the distinct notions of words and their peculiar force may more easily be perceived. All words may be divided into *proper words* and *tropes*. Those are called *proper words*, which are expressed in their proper and usual sense. And *tropes* are such words as are applied to some other thing than what they properly denote, by reason of some similitude, relation, or contrariety between the two things. So, when a subtle artful man is called a *fox*, the reason of the name is founded in a similitude of qualities. If we say, *Cicero will always live*, meaning *his works*, the cause is transferred to the effect. And when we are told, *Cæsar conquered the Gauls*, we understand that he did it with the assistance of his army; where a part is put for the whole, from the relation between them. And when Cicero calls Antony a *fine guardian of the state*, every one perceives he means the contrary. But the nature and use of tropes will be explained more fully hereafter in their proper place. All words must at first have had one original and primary signification, which, strictly speaking, may be called their *proper sense*. But it sometimes happens through length of time, that words lose their original signification, and assume a new one, which then becomes their proper sense. So *hostis* in the Latin tongue at first signified a *stranger*; but afterwards that sense of the word was entirely laid aside, and it was used to denote a *public enemy*. And in our language, it is well known, that the word *knave* anciently signified a *servant*. The reason of the change seems to be much the same, as in that of the Latin word *latro*; which first signified a *soldier*, but afterwards a *robber*. Besides, in all languages it has frequently happened, that many words have gradually varied from their first sense to others somewhat different; which may, notwithstanding, all of them, when rightly applied, be looked upon as proper. Nay, in process of time, it is often difficult to say which is the original, or most proper sense. Again, sometimes two or more words may appear to have the same signification with each other, and may therefore be used indifferently; unless the beauty of the period, or some other particular reason, determine to the choice of one rather than another. Of this kind are the words *ensis* and *gladius* in the Latin tongue; and in ours, *pity* and *compassion*. And there are other words of so near an affinity to each other, or at least appear so from vulgar use, that they are commonly thought to be synonymous. Such are the words *mercy* and *pity*; though mercy in its strict sense is exercised towards an offender, and pity respects one in distress. As this peculiar force and distinction of words is carefully to be attended to, so it may be known several ways. Thus the proper signification of substantives may be seen by their application to other substantives. As in the instance just now given, a person is said to show *mercy*

to a criminal, and *pity* to one in distress. And in the like manner, verbs are distinguished, by being joined to some certain nouns, and not to others. So a person is said to *command an inferior*, to *intreat a superior*, and to *desire an equal*. Adjectives also, which denote the properties of things, have their signification determined by those subjects to which they most properly relate. Thus we say, *an honest mind*, and *a healthful body*; *a wise man*, and *a fine house*. Another way of distinguishing the propriety of words, is by their use in gradations. As if one should say, *Hatreds, grudges, quarrels, tumults, seditions, wars, spring from unbridled passions*. The proper sense of words may likewise be known by observing to what other words they are either opposed, or used as equivalent. So in that passage of Cicero, where he says, "I cannot perceive why you should be angry with me: If it be because I defend him whom you accuse, why may not I be displeased with you for accusing him whom I defend?" You say, I accuse my enemy; and I say, I defend my friend." Here the words *accuse* and *defend*, *enemy* and *friend*, are opposed; and *to be angry* and *displeased*, are used as terms equivalent. Lastly, the derivation of words contributes very much to determine their true meaning. Thus because the word *manners* comes from the word *man*, it may properly be applied either to that or any other put for it. And therefore we say, *the manners of men*, and *the manners of the age*, because the word *age* is there used for *the men of the age*. But if we apply the word *manners* to any other animal, it is a trope. By these and such like observations we may perceive the proper sense and peculiar force of words, either by their connection with other words, distinction from them, opposition to them, equivalency with them, or derivation. And by thus fixing their true and genuine signification, we shall easily see when they become tropes. But though words, when taken in their proper signification, generally convey the plainest and clearest sense; yet some are more forcible, sonorous, or beautiful, than others. And by these considerations we must often be determined in our choice of them. So whether we say, *he got*, or *he obtained*, *the victory*, the sense is the same; but the latter is more full and sonorous. In Latin, *timeo* signifies *I fear*; *pertimeo* is more full and significant; and *pertimesco* more sonorous than either of the former. The Latin and Greek languages have much the advantage of ours in this respect, by reason of their compositions; by the help of which they can often express that in one word for which we are obliged to put two words, and sometimes more. So *pertimeo* cannot be fully expressed in our language by one word; but we are forced to join one or two particles to the verb, to convey its just idea, and say, *I greatly*, or *very much fear*: and yet even then we scarce seem to reach its full force. As to tropes, though generally speaking they are not to be chosen where plainness and perspicuity of expression is only designed, and proper words may be found; yet through the penury of all languages, the use of them is often made necessary. And some of them, especially metaphors, which are taken from the similitude of things, may, when custom has rendered them familiar, be considered as proper words, and used in their stead. Thus, whether we say, *I see your meaning*, or, *I understand your meaning*, the sense is equally clear, though the

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tion of sen-
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the latter expression is proper, and the former metaphorical, by which the action of seeing is transferred from the eyes to the mind.

II. But *perspicuity* arises not only from a choice of *single words*, but likewise from the *construction* of them in sentences. For the meaning of all the words in a sentence, considered by themselves, may be very plain and evident; and yet, by reason of a disorderly placing them, or confusion of the parts, the sense of the whole may be very dark and obscure. Now it is certain, that the most natural order is the plainest; that is, when both the words and parts of a sentence are so disposed, as best agrees with their mutual relation and dependence upon each other. And where this is changed, as is usually done, especially in the ancient languages, for the greater beauty and harmony of the periods; yet due regard is had by the best writers to the evidence and perspicuity of the expression.

But to set this subject in a clearer light, on which the perfection of language so much depends, we shall mention some few things which chiefly occasion obscurity; and this either with respect to single words, or their construction.

And first, all ambiguity of expression is one cause of obscurity. This sometimes arises from the different senses in which a word is capable of being taken. So we are told, that upon Cicero's addressing himself to Octavius Cæsar, when he thought himself in danger from his resentment, and reminding him of the many services he had done him, Octavius replied, *He came the last of his friends*. But there was a designed ambiguity in the word *last*, as it might either respect the time of his coming, or the opinion he had of his friendship. And this use of ambiguous words we sometimes meet with, not only in poetry, where the turn and wit of an epigram often rests upon it; but likewise in prose, either for pleasantry or ridicule. Thus Cicero calls Sextus Clodius *the light of the senate*; which is a compliment he pays to several great men, who had distinguished themselves by their public services to their country. But Sextus, who had a contrary character, was a relation of P. Clodius, whose dead body, after he had been killed by Milo, he carried in a tumultuous manner into the senate-house, and there burnt it with the senators benches, in order to inflame the populace against Milo. And it is in allusion to that riotous action, that Cicero, using this ambiguous expression, calls him *the light of the senate*. In such instances, therefore, it is a beauty, and not the fault we are cautioning against: as the same thing may be either good or bad, as it is differently applied.—Though even in such designed ambiguities, where one sense is aimed at, it ought to be sufficiently plain, otherwise they lose their intention. And in all serious discourses they ought carefully to be avoided. But obscurity more frequently arises from the ambiguous construction of words, which renders it difficult to determine in what sense they are to be taken. Quintilian gives us this example of it: "A certain man ordered in his will, that his heir should erect for him a statue holding a spear made of gold." A question arises here, of great consequence to the heir from the ambiguity of the expression, whether the words *made of gold* are to be applied to the *statue* or the *spear*; that is, whe-

ther it was the design of the testator by this appointment, that the whole statue, or only the spear, should be made of gold. A small note of distinction, differently placed between the parts of this sentence, would clear up the doubt, and determine the sense either way. For if one comma be put after the word *statue*, and another after *spear*, the words *made of gold* must be referred to the statue, as if it had been said, *a statue, made of gold, holding a spear*. But if there be only the first comma placed after *statue*, it will limit the words *made of gold* to the *spear* only; in the same sense as if it had been said, *A statue holding a golden spear*. And either of these ways of expression would in this case have been preferable, for avoiding the ambiguity, according to the intention of the testator. The ancient heathen oracles were generally delivered in such ambiguous terms. Which, without doubt, were so contrived on purpose, that those who gave out the answers might have room left for an evasion. See ORACLE.

Again, obscurity is occasioned either by too short and concise a manner of speaking, or by sentences too long and prolix; either of these extremes have sometimes this bad consequence. We find an instance of the former in Pliny the elder, where speaking of hellebore, he says, "They forbid it to be given to aged persons and children, and less to women than men." The verb is wanting in the latter part of the sentence, and *less to women than men*: which in such cases being usually supplied from what went before, would here stand thus; *and they forbid it to be given less to women than men*. But this is directly contrary to the sense of the writer, whose meaning is, either that it is ordered to be given in a less quantity to women than men, or not so frequently to women as men. And therefore the word *order* is here to be supplied, which being of a contrary signification to *forbid*, expressed in the former part of the sentence, occasions the obscurity. That long periods are often attended with the same ill effect, must be so obvious to every one's experience, that it would be entirely needless to produce any examples in order to evince the truth of it. And therefore we shall only observe, that the best way of preventing this seems to be by dividing such sentences as exceed a proper length into two or more; which may generally be done without much trouble.

Another cause of obscurity, not inferior to any yet mentioned, is *parenthesis*, when it is either too long or too frequent. This of Cicero, in his oration for Sylla, is longer than we usually find in him: "O immortal gods! (for I must attribute to you what is your own; nor indeed can I claim so much to my own abilities, as to have been able of myself to go through so many, so great, such different affairs, with that expedition, in that boisterous tempest of the state), you inflamed my mind with a desire to save my country." But where any obscurity arises from such sentences, they may frequently be remedied by much the same means as was just now hinted concerning long and prolix periods; that is, by separating the parenthesis from the rest of the sentence, and placing it either before or after. So in this sentence of Cicero, the parenthesis may stand last, in the following manner:—"O immortal gods! you inflamed my mind with a desire to save my country: for I must attribute to you what is your own; nor indeed can I claim so much to my

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CHAP. II. Of Composition.

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Composition defined and divided.

COMPOSITION, in the sense it is here used, gives rules for the structure of sentences, with the several members, words, and syllables, of which they consist, in such a manner as may best contribute to the force, beauty, and evidence of the whole.

Composition consists of four parts, which rhetoricians call *period*, *order*, *juncture*, and *number*. The first of these treats of the structure of sentences; the second, of the parts of sentences, which are words and members; and the two last, of the parts of words, which are letters and syllables. For all articulate sounds, and even the most minute parts of language, come under the cognizance of oratory.

§ I. Of Period.

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Period defined and explained.

IN every sentence or proposition, something is said of something. That of which something is said, logicians call the *subject*, and that which is said of it, the *predicate*; but in grammatical terms, the former is a *noun substantive of the nominative case*, and the latter a *finite verb*, denoting affirmation, and some state of being, acting, or suffering. These two parts may of themselves constitute a sentence: As when we say, *The sun shines*, or *The clock strikes*, the word *sun* and *clock* are the subject in these expressions, *shines* and *strikes* imply each the copula and predicate. Most commonly, however, the noun and the verb are accompanied with other words, which in grammatical construction are said either to be connected with or to depend upon them; but in a logical consideration they denote some property or circumstance relating to them. As in the following sentence: *A good man loves virtue for itself*. The subject of this sentence is *a good man*; and the predicate, or thing affirmed of him, that he *loves virtue for itself*. But the two principal or necessary words, on which all the rest depend, are *man* and *loves*. Now a simple sentence consists of one such noun and verb, with whatever else is joined to either or both of them. And a compound sentence contains two or more of them; and may be divided into so many distinct propositions, as there are such nouns and verbs, either expressed or understood. So in the following sentence, *Compliance gains friends, but truth procures hatred*, there are two members, each of which contains in it an entire proposition. For, *Compliance gains friends* is one complete sentence, and *Truth procures hatred* is another; which are connected into one compound sentence by the particle *but*. Moreover, it frequently happens, that compound sentences are made up of such parts or members, some if not all of which are themselves compounded, and contain in them two or more simple members. Such is that of Sallust: "Ambition has betrayed many persons into deceit; to say one thing, and to mean another; to found friendship and enmity, not upon reason, but interest; and to be more careful to appear honest, than really to be so." This sentence consists of four members; the last of which

three, consisting of opposite parts, are all compound. **Elocution.** ed, as will appear by expressing them at length in the following manner: *Ambition has betrayed many persons into deceit; [that is, ambition] has betrayed them to say one thing, and to mean another; it has betrayed them to found friendship and enmity, not upon reason, but interest; and it has betrayed them to be more careful to appear honest, than really to be so.* The three last of these members, beginning with the words *it betrays*, are all of them compounded, and consist of two opposite members; which might each of them be expressed at length in the same manner, by supplying the ellipsis. As, *Ambition has betrayed many persons to say one thing, and it has betrayed them to mean another.* And so of the rest. From this instance we see how much is left to be supplied by the mind in all discourse, which if expressed would both destroy its harmony and render it exceedingly tedious. But still regard must be had to that which is omitted, so as to render what is said consistent with it; otherwise there can be no propriety in what is spoken. Nor can the members of a sentence be distinguished and duly ranged in their proper order, without this. But to proceed: Some sentences consist either wholly, or in part, of such members as contain in them two or more compound ones, which may therefore, for distinction's sake, be called *decompound members*.—Of this kind is that of Cicero, in his defence of Milo: "Great is the force of conscience, great either way: that those persons are not afraid who have committed no offence; and those who have offended always think punishment present before their eyes." The latter member of this sentence, which begins with the word *that*, contains in it two compound members, which represent the different state of mind between innocent and guilty persons. And it is in the proper distinction and separation of the members in such complex sentences, that the art of pointing chiefly consists. For the principal use of a comma is to divide the simple members, a semicolon the compound ones, a colon such as are decompounded, and a period the whole from the following sentence. We mention this the rather, to show the different acceptation of these terms by grammarians, from that of the ancient writers upon oratory. For these latter apply them to the sense, and not to any points of distinction. A very short member, whether simple or compound, with them is a comma, and a longer a colon; for they have no such term as a semicolon. Besides, they call a very short sentence, whether simple or compound, a *comma*, and one of somewhat a greater length, a *colon*. And therefore, if a person expressed himself either of these ways in any considerable number of sentences together, he was said to speak by commas or colons. But a sentence containing more words than will consist with either of these terms, they call a *simple period*; the least compound period with them requiring the length of two colons. However, this way of denominating sentences, and the parts of them, rather from their length than the nature of them, appearing not so suitable, we have chosen rather to make use of the terms *simple* and *compound members*; and to call all those *compound periods*, which contain two or more members, whether simple or compounded.

But to proceed: Sentences, with respect to their form or composition, are distinguished into two sorts, called

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called by Cicero *tracta*, "straight or direct;" and *contorta*, "bent or winding." By the former are meant those whose members follow each other in a direct order, without any inflection; and by the latter, those which strictly speaking are called *periods*. For *περιόδος* in Greek signifies a *circuit* or *circle*. And so the Latins call it *circuitus* and *ambitus*. By which both of them mean a sentence consisting of correspondent parts, so framed, that the voice in pronouncing them may have a proper elevation and cadency, and distinguish them by its inflection; and as the latter part returns back, and unites with the former, the period, like a circle, surrounds and incloses the whole sense. This elevation of the voice in the former part of the period, is by the Greeks called *πρότασις*, and by the Latins *propositio*; and the depression of it in the latter part, by the one *ἀποδοσις*, and by the other *reditio*.

Now as simple sentences have not these correspondent parts, which require any inflection of the voice; nor a circular form, by reason of their brevity; they are not properly periods, in the strict sense of the word: though in common speech, the words *sentence* and *period* are often used as equivalent terms. Thus, if we say, *Generous minds are incited to the performance of noble exploits from motives of glory*; here is no distinction of parts, nor inflection of the voice in this sentence. And indeed there is not any thing which relates to the structure of these sentences, but what will more properly be taken notice of in the second part of *composition*, which is *order*.

And as to those compound sentences, whose members follow each other in a direct order, without any inflection, there is little art required in their composition. We shall produce one example of this kind from Cicero: "Natural reason inclines men to mutual converse and society; and implants in them a strong affection for those who spring from them; and excites them to form communities, and join in public assemblies; and, for these ends, to endeavour to procure both the necessities and conveniences of life; and that not for themselves only, but likewise for their wives, children, and others who are dear to them, and have a right to their assistance." Here are five short members in this sentence, placed in a series, without any inflection of the parts, or orbit of the whole. And as such sentences have no other boundary but the conclusion of the sense, suited to the breath of the speaker, he may either contract or lengthen them at pleasure, without offending the ear. So, should the sentence last mentioned conclude with the first member in this manner, *Natural reason inclines men to mutual converse and society*; the sense would be perfect, and the ear satisfied. The case would be the same at the end of the second member, thus: *Natural reason inclines men to mutual converse and society, and implants in them a strong affection for those who spring from them*. And the like may be said of the rest. Since such sentences therefore may be thus limited at pleasure, it seems more convenient both for the speaker and hearers to confine them to a moderate length.

But because the principal art relating to this part of composition lies in the frame and structure of such compound sentences as are properly called *periods*, we shall treat upon these somewhat more largely. In the

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formation of these periods, two things are chiefly to be regarded; their *length*, and *cadency*. As the length ought to be suited to the breath of the speaker, the ancient rhetoricians scarce admit of more than four colons; by which we may here understand compound members of a moderate size, which will be generally found a suitable and proportionate length. For to extend them farther than the voice can well manage must be painful to the speaker, and of consequence unpleasant to the hearers. As to the cadency, what Cicero has observed, is found true by experience, that the ears judge what is full and what is deficient; and direct us to fill up our periods, that nothing be wanting of what they expect. When the voice is raised at the beginning of a sentence, they are in suspense till it be finished; and are pleased with a full and just cadency, but are sensible of any defect, and are displeased with redundancy. Therefore care must be taken that periods be neither deficient, and as it were maimed, that is, that they do not drop before their time, and defraud the ears of what seemed to be promised them; nor, on the other hand, offend them by too long and immoderate excursions. This rise and cadency of the voice in pronunciation, depend on the nature and situation of the members, as we shall endeavour to show by particular instances; in the explication of which, by the word *members*, are to be understood such as are uncompounded. In a period of two members, the turn of the voice begins with the latter member. Of this kind is the following sentence of Cicero: "If impudence prevailed as much in the forum and courts of justice, as insolence does in the country and places of less resort; Aulus Cæcina would submit as much to the impudence of Sextus Ebutius in this cause, as he did before to his insolence when assaulted by him." Here the cadency begins at the words *Aulus Cæcina*. If a sentence consist of three members, the inflection is best made at the end of the second member: for if it begin immediately after the first, the voice will be either apt to sink too low, and not to be heard, before it reach the end; or else be precipitated, in order to prevent it. Cicero begins his oration for Milo with a sentence of this form: "Although I fear, it may be a shame to be dismayed at the entrance of my discourse in defence of a most valiant man; and that it nowise becomes me, while Milo is more concerned for the safety of the state than for himself, not to show the same greatness of mind in his behalf: yet this new form of prosecution terrifies my eyes, which, whatever way they turn, want the ancient custom of the forum, and former manner of trials." Here the cadency beginning at the third member with the word *yet*, makes a proper division of the sentence, and easy for the speaker. But a period of four members is reckoned the most complete and perfect, where the inflection begins at the middle, that is, with the third member. Nor is it the same case here, as if, in a sentence of three members, the cadency be made at the second. For in proportion to the time of raising the voice may the space be allowed for its sinking. The following sentence of Cicero gives us an instance of this, where he speaks to his son: "Although, son Mark, having now been an hearer of Cratippus for a year, and this at Athens, you ought to abound in the precepts and doctrines of philosophy,

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philosophy, by reason of the great character both of your instructor and the city; one of which can furnish you with knowledge, and the other with examples: yet, as I always to my advantage joined the Latin tongue with the Greek, and have done it not only in oratory, but likewise in philosophy; I think you ought to do the same, that you may be equally conversant in both languages." The turn in this period begins at the word *yet*; which standing near the middle, the voice is raised to that pitch in pronouncing the former part, as to admit of a gradual cadency, without being lost before the conclusion of the sentence. But where the sense does not suit with this division at the entrance upon the third member, it is best made at the fourth. Such is the following sentence of Cicero: "If I have any genius, which I am sensible is very small; or any readiness in speaking, wherein I do not deny but I have been much conversant; or any skill in oratory, from an acquaintance with the best arts, to which I confess I have been always inclined: *no one* has a better right to demand of me the fruit of all these things, than this Aulus Læcinus." The cadency of this sentence does not begin till the words *no one*; yet it ends handsomely, and without disappointing the ear. Though indeed the three first members having each of them an inflection, check the elevation of the voice, and by that variety in the pronunciation add to the harmony of the sentence. An equality of the members should likewise be attended to in the composition of a period, the better to adjust their rise and cadency. And for this reason, in sentences of three members, where the cadency begins with the third; or in those of four members, where it begins at the fourth; it promotes the harmony to make the last member longest. This is properly the nature of rhetorical periods, which when rightly formed have both an equal beauty and dignity in their composition.

But as all discourse is made up of distinct sentences, and whenever we express our thoughts it is in some of the forms above-mentioned; so the use of them is not promiscuous, but suited to answer different designs in speaking. And in this view they are considered and made use of by the orator, as will be shown hereafter.

§ 2. Of Order.

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Order defined and illustrated.

By order, rhetoricians mean the placing each word and member of a sentence in such a manner as will most contribute to the force, beauty, or evidence of the whole.

Order is of two kinds, *natural* and *artificial*. And each of these may be considered with respect to the parts either of simple or compound sentences.

As to simple sentences, we may call that order *natural*, when all the words in a sentence are so placed, as they are connected with or follow each other in a grammatical construction. And it may properly enough admit of this name, as it is founded in the nature of a proposition, and the relation of the several words of which it consists to each other. This we explained in the last chapter, and illustrated by proper examples; and shall therefore only give one instance of it here, to introduce the subject we are now upon. And it is this: *The fame of Isocrates excited Aristotle to the profession of oratory.* Here these words, *the fame*

of Isocrates, contain the subject of this sentence, with what relates to it; and all those which follow, *excited Aristotle to the profession of oratory*, make up the predicate and its dependants. And in both parts each word grammatically considered stands in its proper order of construction. And this seems agreeable to the natural way of conveying our thoughts, which leads us first to express the subject or thing of which some other thing is said, before the predicate or that which is said concerning it; and with respect to both, as every idea succeeds another in the order of our conceptions, to range it in the same order when we communicate them to others. Our language in the general keeps pretty much to this method. But in one thing particularly it recedes from it; and that is, in placing adjectives, which denote the properties of things, before their substantives or subjects, whose properties they are: As when it is said, *Evil communication corrupts good manners.* And this we always do, except something follows which depends upon the adjective. So we say, *He was a man eminent for his virtue*; not *an eminent man*.

Artificial order, as it respects simple sentences, has little or no regard to the natural construction of words; but disposes them in such a manner as will be most agreeable to the ear, and best answer the design of the speaker. The Latins take a much greater liberty in this respect than we do, or than the nature of our language will permit. Quintilian says, it is best for the verb to stand last, when there is no particular reason to the contrary. And he gives this reason for it, *because the force of the sentence lies in the verb*. So that, according to him, they seem to have had this view in putting the verb at the end; that as the whole sentence is imperfect without the verb, the mind being thus held in suspense might receive the deeper impression from it at last. They likewise separate such words as have an immediate relation between them or dependence one upon another, and place any of them first or last as they please. In short, their order seems in a manner arbitrary, if it does not break in upon perspicuity, to which they usually attend. But most of these things are unsuitable to the genius of our language. One might say indeed, *Convince him you cannot*; instead of saying, *You cannot convince him*: Or, *With my own eyes I saw it*; for, *I saw it with my own eyes*. And again: *In proportion to the increase of luxury the Roman state declined*; for, *The Roman state declined in proportion to the increase of luxury*. But this inversion of words is proper in English composition only when it gives force to the expression; as in the higher style it often does. It serves to impress known truths upon the mind, but is unfit for communicating the first principles of knowledge.

As to compound sentences, that is, such as consist of two or more members, either simple or compound; what relates to the words in each member separately is the same as in simple sentences. But with regard to the disposition of the several members, that may be called the *natural order*, which so places them as they mutually depend on each other. Thus the antecedent member naturally precedes the relative; as in this expression, *Men are apt to forgive themselves what they blame in others*. In hypothetical sentences the conditional member naturally stands first. Thus: *If Socrates be a rational creature, he is a man*. That

Elocution. member which expresses the effect of an action naturally comes last; as, *Though you offer ever so good reasons, you will not prevail with him.* The like may be said of time, with regard to things done in it; as, *The Roman eloquence soon declined, when Cicero was dead.* And to name no more, the reason of a thing naturally follows that of which it is the reason; as thus: *All the pleasures of life must be uncertain, since life itself is not secure.*

When this order is inverted, it may be styled *artificial*. So to keep to the instances already given, the two members in the first sentence may be thus inverted: *What they blame in others men are apt to forgive themselves.* In the second, in this manner: *Socrates is a man, if he be a rational creature.* In the third, thus: *You will not prevail with him, though you offer ever so good reasons.* And so in the rest: *As, When Cicero was dead, the Roman eloquence soon declined; and, Since life itself is not secure, all the pleasures of life must be uncertain.* The variety of inversions in a sentence may generally be greater or less in proportion to the number of its members. In the following sentence of Cicero, the natural order seems to be this: *If that greatness of mind be void of justice, which shows itself in dangers and labours, it is blameable.* Which may be varied by changing the place of the first and third member, in the following manner: *That greatness of mind is blameable which shows itself in dangers and labours, if it want justice.* Or by altering the place of all the three members thus: *That greatness of mind is blameable, if it be void of justice, which shows itself in dangers and labours.* But oftentimes one member may be included in another, as in the instance here given: *If that greatness of mind, which shows itself in dangers and labours, be void of justice, it is blameable.* Here the relative member is included in the conditional, which is placed first, and the antecedent member follows both. But in Cicero it stands thus: *That greatness of mind, which shows itself in dangers and labours, if it want justice, is blameable;* where the relative and conditional members are both included in the antecedent member. The Latin tongue commonly admits of a much greater variety in the transposition of members, as well as in that of single words, than suits with our idiom. In the following sentence the natural order is much preferable, as it best suits with the proper elevation and cadency of the voice in its pronunciation: *I am willing to remit all that is past, provided it may be done with safety.* But should we invert the members, and say, *Provided it may be done with safety, I am willing to remit all that is past;* the harmony of the cadency would be lost. And if the latter member be included in the former, the alteration will still be worse; as, *I am willing, provided it may be done with safety, to forgive all that is past.* Here the inflection of the voice falls upon the same member as before, and destroys the beauty of the period by its elevation afterwards. Some sentences admit of no involution of their members. Such are those whose members are connected by conjunctive or disjunctive particles. As, *Virtue furnishes the mind with the truest pleasure in prosperity, and affords it the greatest comfort in adversity.* And, *A wise man is neither elated by prosperity, nor depressed by adversity.* And the like may be said of those where the latter mem-

ber begins with some illative or redditive particle. *Elocution.* As in these instances: *The chief thing to be regarded in life is virtue, for all other things are vain and uncertain.* And, *Though fortune is always inconstant, yet she has many votaries.* Neither of the members in any of these ways of expression, and some others which might be named, can be included one in the other. In all the examples hitherto given, the sentences consist only of simple members; and indeed compound members are not so often inverted, nor included one in another, by reason of their length. However, we shall here produce one instance of each: *Whoever considers the uncertainty of human affairs, and how frequently the greatest hopes are frustrated; he will see just reason to be always on his guard, and not place too much dependence upon things so precarious.* This sentence consists of two compound members, which here stand in their natural order, but may be thus inverted: *He will see just reason to be always on his guard, and not place too much dependence on things so precarious; whoever considers the uncertainty of human affairs, and how often the greatest hopes are frustrated.* In the following sentence one compound member is included in another: *Let us not conclude, while dangers are at a distance, and do not immediately approach us, that we are secure; unless we use all necessary precaution to prevent them.* Here the natural order would be: *While dangers are at a distance, and do not immediately approach us; let us not conclude, that we are secure, unless we use all necessary precaution to prevent them.*

But there are some other considerations relating to order, which, being taken from the nature of things, equally suit all languages. So, in amplifying, there should be a constant gradation from a less to a greater; as when Cicero says, *Ambition creates hatred, syns, discords, seditions, and wars.* On the contrary, in extenuating, we should descend from a greater to a less; as if, speaking of the ancient laws of Rome, one should say, *They were so far from suffering a Roman citizen to be put to death, that they would not allow him to be whipped, or even to be bound.* In constituting any whole, we put the parts first; as, *Invention, disposition, elocution, and pronunciation, make up the art of oratory.* But in separating any whole, the parts follow: as, *The art of oratory may be divided into these four parts; invention, disposition, elocution, and pronunciation.* In every enumeration care must be taken not to mix the whole with the parts; but if it be mentioned at all, it must either be put first or last. So it would be wrong to say, *He was a man of the greatest prudence, virtue, justice, and modesty:* for the word *virtue* here contains in it the other three, and therefore should not be inserted among them. See LANGUAGE, n^o 17.

§ 3. Of Juncture and Number.

QUINTILIAN, speaking of composition, represents a discourse as very happy in that respect, when the order, juncture, and number, are all just and proper. The first of these, which gives rules for the due placing of the words and members of a sentence, has been already explained. We now proceed to the other two, which relate to letters and syllables; the former treating of their connection, and the latter of their quantity.

Elocution. I. As to *junction*. A due attention is to be paid to the nature of the vowels, consonants, and syllables in the connection of words, with regard to the sound.

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The nature and use of *junction* explained and illustrated.

As to the *first*, when a word ends with a vowel, and the next begins either with a different vowel, or the same repeated, it usually renders the pronunciation hollow and unpleasant. For, as Quintilian has justly observed, "This makes a chasm in the sentence, and stops the course of it." For there must be some pause, in order to pronounce them both, or otherwise the sound of one will be lost. So, for instance, in pronouncing these words, *the other day*, unless you stop a little after the word *the*, the sound of *e* will not be heard; and if it is dropt, it will occasion a rougher sound, from the aspiration of *th* twice repeated so near together, as *th' other day*. Therefore to prevent both these inconveniences, we usually say, *t' other day*. But the different consonants, which together with the vowels make up those syllables, often cause a considerable difference in the pronunciation, so as to render it more or less agreeable. As, if we say, *he overdid it*, the words *he over* have not so harsh a sound, as *the other*; though still they require some pause to keep them distinct. Besides, some vowels meet more amicably, and admit of a softer pronunciation, than others. Those which have the weakest and smallest sound, follow best; because they occasion the least alteration of the organ in forming the two sounds. Such are *e* and *i*; and therefore, without any chasm in the sound, or hesitation of the voice, we say, *he is*. But where the action of the organs is greater, and the sound stronger, the pronunciation is more difficult: as when we say, *tho' all*. For here is a contrary motion of the lips, which are first put forward in sounding the *o*, and then drawn backward to pronounce the *a*; and therefore the sound is much softer to say, *tho' every*, where their action is less. And the like ill effect commonly happens from the repetition of the same vowel: as if we say, *go on*; or, *you usually act thus*. There is a considerable difference between these two expressions, in repeating the sound of the vowel, and where either of them is doubled in a single word. For then the same sound only is protracted by one continued motion of the organ; as in the words *good*, and *deem*. But here the sound is repeated again by a new action of the organ; which, if precipitated, obscures the sound of one of the vowels; and, if too much retarded, makes a chasm in the pronunciation; either of which is unpleasant to the ear.

But as the coalition of two vowels occasions an hollow and obscure sound, so the meeting of some consonants renders it very harsh and rough. Thus the words *king Xerxes*, and *public good*, when so placed have not only a roughness, but likewise a difficulty in their pronunciation, from the contrary action of the lips; which in the former are first drawn back and then forward, but in the latter the contrary way, and in both of them with some considerable force. But this may very easily be avoided, by saying, with a little alteration in the words, *Xerxes the king*, and *the good of the public*. So likewise the words *ill company*, have a softer sound than *bad company*, for the same reason. To multiply instances of this kind seems unnecessary, which so frequently occur in all discourses.

Elocution. The repetition of the same syllable, at the end and beginning of words, is the last thing to be considered. And a little observation will convince us, that where this happens, it generally renders the sound either confused or unpleasant. Cicero was often rallied on account of this verse:

O fortunatam natam me consule Romam.

Every one will easily perceive a disagreeable sound in the following expression: "A man many times does that unadvisedly, of which he afterwards repents." The chime of the words *man many* both seems affected, and displeases the ear. But this will soon be remedied, if we separate those two words, and say, "A man does that many times unadvisedly."

From the short account here given of this part of composition, it is easy to perceive what things are necessary to render it most complete and accurate; which are these following. If a word end with a vowel, the next ought to begin with a consonant, or such a vowel whose sound may agree well with the former. But if a word conclude with a consonant, either a vowel should follow, or such a consonant whose pronunciation will suit with it. And lastly, the same syllable ought not to be repeated at the end of one word, and the beginning of the next. It has been observed by some critics, that the following verse at the beginning of Virgil's *Aeneid* has all these properties:

Arma virumque cano, Trojae qui primus ab oris.

Where any word in this verse ends with a vowel, the next begins with a consonant; and where any one ends with a consonant, the next begins with a vowel; and there is no repetition of the same sound throughout the whole. But this is what rarely happens, especially in our language, which abounds with consonants. And what Quintilian says of the coalition of vowels, in treating upon this subject, seems applicable to the whole. "This (says he) is a thing not much to be dreaded; and I know not whether the neglect of it, or too great a concern about it, be worse. It necessarily checks the vigour of the mind, and diverts it from matters of greater importance. And therefore, as it shows negligence to permit it, so to be in constant fear of it discovers a low genius." This was the opinion of that judicious writer. And as these things cannot always be attended to, it may be sufficient to avoid them, where they prove very offensive to the ear, and it may be done without some greater inconvenience. So in this sentence, *Honestly is the best policy*, the coalition of *t* and *p* in the two last words *best policy* produces a roughness in their pronunciation; but as the expression is strong, and cannot perhaps be well altered for the better, the sound here ought to give way to the sense.

II. *Number*. This respects the quantity of syllables, as *Juncture* does their quality. In the Greek and Roman languages every syllable has its distinct quantity; and is either long, short, or common: two or more of which joined together in a certain order make a foot, and a determinate number of these in a different order constitute their several sorts of metre. This variety of sounds gives a much greater harmony to their poetry, than what can arise only from the

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he nature and use of numbers.

^{Elocution.} seat of the accent, and the similitude of sound at the end of two verses, which chiefly regulate our metre. And although their prose was not so confined with regard to the feet, either as to the kind or place of them, as their metrical compositions; yet it had a sort of measure, more especially in the rise and cadency of their periods. This they call *rhetorical number*. And accordingly the ancient writers upon this art acquaint us what feet are best suited to the beginning, middle, or conclusion of a sentence. Such rules are not applicable to our language, which has not that accurate distinction of quantity in its syllables. For we are apt to confound accent with quantity, and pronounce those syllables longest on which we lay the accent, though in their nature they are not so. As in the word *admirable*, where none but the first syllable *ad* is pronounced long; though that is only rendered so by position, and the two following are so by nature. And again, in the word *avarice*, we found the first *a* long for the same reason, and the second short; contrary to the nature of both those vowels. However, we shall offer a few things that may be of some use to modulate our periods and adjust their cadency.

A great number of monosyllables do not stand well together. For as there ought to be a greater distance in the pronunciation between one word and another, than between the syllables of the same word; such pauses, though short, yet, when too frequent, make the sound rough and uneven, and by that means spoil its harmony. And this may seem more necessary to be attended to, because the English language abounds so much with monosyllables. On the contrary, a continuation of many long words makes a sentence move too slow and heavily. And therefore such periods generally run best, which have a proper mixture of words of a different length. Besides, as every word has its accent, which with us stands for quantity, a number either of monosyllables, or long words, coming together, so far abates the harmony, as it lessens the variety.

Again, several words of the same ending do not stand well together, especially where the accent falls upon the same syllable in each of them. For this creates too great a jingle by the similitude of sound; and is apt to displease, from an appearance of affectation. Of this kind is the following sentence: *Nothing is more welcome, delightful, or wholesome, than rest to a wearied man*. In such expressions therefore, if the order of the words cannot well be altered, some other word should be substituted in the room of one of them at least, to diversify the sound. So in the example here given, the sound might be varied by saying, *Nothing is more welcome, pleasant, or wholesome*.

But to add no more, if a sentence end with a monosyllable, it is apt to hurt the cadency, and disappoint the ear; whereas words of a moderate length carry a greater force with them, by the fulness of their sound, and afford the ear what it expected. And there is one sort of monosyllables more especially, which never stand well at the conclusion of a period, though we frequently find them there; and these are the signs of cases. Thus we say, *Avarice is a crime, which wise men are too often guilty of*. But the cadency

would doubtless be more agreeable if it was altered thus: *Avarice is a crime, of which wise men are too often guilty*. Every one must perceive, when the accent falls upon the last syllable in the sentence, as it does if it end with *of*, the sound is not so pleasant as when it rests upon the preceding syllable in the word *guilty*. Nor are very long words well suited either to the beginning or conclusion of a period; for they retard the pronunciation at first, and fall too heavy at the end.

CHAP. III. Of Dignity.

DIGNITY consists in the right use of tropes and figures. It is not sufficient for an orator to express himself with propriety and clearness, or in smooth and harmonious periods; but his language must likewise be suited to the nature and importance of the subject. And therefore, as *elegance* gives rules for the first of these, and *composition* for the second; so does *dignity* for the last of them. It is very evident, that different subjects require a different style and manner of expression; since, as Quintilian says, "What is magnificent in one discourse would be turgid in another; and those expressions which appear low upon a sublime subject, would suit lesser matters: and as in a florid harangue a mean word is remarkable, and like a blemish; so any thing lofty and bright upon a trivial argument is disproportionate, and like a tumour upon an even surface." Now this variety in the manner of expression arises in a great measure from tropes and figures, which not only enliven and beautify a discourse, but give it likewise force and grandeur; for which reason this part of elocution seems to have been called *dignity*.

Tropes and figures are distinguished from each other in several respects. Tropes mostly affect single words, but figures whole sentences. A trope conveys two ideas to the mind by means of one word; but a figure throws the sentence into a different form from the common and usual manner of expression. Besides, tropes are chiefly designed to represent our thoughts, but figures our passions.

§ 1. Tropes.

A trope, which is a figure of words, has been usually defined to be the change of a word from its proper signification to some other with advantage, either as to beauty or strength. The words, *with advantage*, are added in the definition, because a trope ought not to be chosen, unless there is some good reason for using it rather than the proper word. But in what manner, or how far, it can be said of all tropes in general, that they change the proper signification of words, will best appear by considering the nature of each kind of them separately. Now in every trope a reference is had to two things, which occasions two ideas; one of the thing expressed, and another of that thing to which it has a respect, and is supplied by the mind. For all tropes are taken either from things internally related, as the whole and a part; or externally, as cause and effect, subject and adjunct; or from some similitude that is found between them; or from a contrariety. The first of these is called *synecdoche*, the second *metonymy*, the

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the third *metaphor*, and the last *irony*. We shall endeavour to illustrate this by examples. When we say, *Hannibal beat the Romans*; the meaning is, that Hannibal and his army did this. So that although in some sense a part may here be said to stand for the whole, which makes it a *synecdoche*; yet, strictly speaking, the word *Hannibal* does not alter its sense, but there is an ellipsis in the expression, Hannibal being put for himself and his army. But if we say, *Cicero should be read by all lovers of eloquence*; here indeed the word *Cicero* appears to be changed from its proper sense, and to signify the books of Cicero; which is a *metonymy*, the author being put for his works; and therefore such expressions need not be deemed elliptical. Again, if any one speaking of a subtle and crafty man, should say *he is a fox*; the meaning is, he is like a fox; which is a *metaphor*; where the word *fox* retains its proper sense, and denotes that animal, to which the man is compared on account of his craft. Lastly, if a person say to another, *Well done*; meaning that the thing was ill done, the word *well* keeps its own sense; but from the manner of its pronunciation, or some other circumstance attending the expression, it will be evident that the contrary is intended: which is called an *irony*. From these instances it may appear in what latitude we must understand the common definition of a trope, which makes it to consist in the change of a word from its proper sense into some other. But though in reality there are but four kinds of tropes, which are distinguished by so many different respects which things bear one to another; yet as these several respects are found in a variety of subjects, and attended with different circumstances, the names of *tropes* have from hence been greatly multiplied; which, however, may all be referred to some or other of those already mentioned, as will be shown when we come to treat of them in their order. And for distinction sake we shall call the former *primary*, and the latter *secondary*, tropes.

We now proceed to consider the reasons which have occasioned the introduction of tropes. And these, as Quintilian observes, are three; *necessity*, *emphasis*, and *beauty*.

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Why introduced.

1. Tropes were first introduced from *necessity*, deriving their origin unquestionably in a considerable degree from the barrenness of language, because no language which we know contains a sufficient number of proper words to express all the different conceptions of our minds: but the principal cause of their introduction seems to be that extensive influence which imagination possesses over every kind of speech. The mind considers the same thing various ways; views it in different lights; compares it with other things; and observes their several relations and affections; wherein they agree, and in what they differ. From all which reflections, it is furnished with almost an infinite number of ideas; which cannot all of them be distinguished and expressed by proper words, since new ones occur daily. And were this possible, yet would it be impracticable; because the multitude of words must be so vastly great, that the memory could not retain them, nor be able to recal them as occasion required. Tropes have in a good measure redressed both these inconveniences; for by means of them

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the mind is not burdened with a numberless stock of different words, and yet nothing seems to want a name. Thus sometimes, where a word is wanting to express any particular thing, it is clearly enough represented by the name of some other thing, by reason of the similitude between them. At other times, the cause is signified by the effect; the subject by the adjunct; or the contrary. And the whole is often understood by a part, or a part by the whole. And thus by the use of tropes, the mind is helped to conceive of something not expressed, from that which is expressed. It is much the same case, as when we have occasion to speak of a person, whose name we are either unacquainted with, or have forgot; for by describing his person, abode, or some other circumstances relating to him, those we converse with as well understand whom we mean, as if we mentioned his name. So the shepherd in Virgil, when he could not think of the name of Archimedes, describes him by his works:

And what's his name who form'd the sphere,
And show'd the seasons of the sliding year?

Besides, it sometimes happens in a discourse, that those things are necessary to be said, which, if expressed in their proper terms, would be offensive; but being clothed with metaphors, may be conveyed to the mind with decency. Thus then the imagination never contemplates any one idea single and alone, but always along with other ideas, which may be called its *accessories*, and which often operate more forcibly upon the mind than the principal idea itself does. In their nature, they are often more agreeable, and frequently also more familiar, to our conceptions; or perhaps they remind us of a greater variety of important circumstances. Hence the name of the accessory is often preferred, as, *e. g.* when we want to point out the time in which a state enjoyed its chief reputation, &c. the proper words might do, but the imagination suggests the flourishing period of a plant or tree; and we say "the Roman empire flourished most under Augustus." Catiline, we say, was the *head* instead of the *leader* of his party, because the head is the principal part of the human figure.

2. A second reason above-mentioned for the use of tropes was, *emphasis*. Tropes do many times express things with greater force and evidence than can be done by proper words. We receive much the greater part of our knowledge by our senses. And similitudes taken from sensible things, as in metaphors, very much assist the mind in its reflections upon those things which do not come under the cognizance of the senses. For it is certain, that we are sooner and more strongly affected with sensible objects, than with things of which we can have no ideas but from the internal operations of our own minds. Nay, sometimes one bright and lively trope shall convey a fuller and more just idea of a thing than a large periphrasis. So when Virgil calls the Scipios *two thunderbolts of war*, he gives a more lively image of the rapid force and speedy success of their arms, than could have been conveyed by a long description in plain words. And in many cases the tropical use of words is so emphatical, and suited to the idea we design to excite, that in this respect it may

Elocution. may be justly esteemed the most proper. So, *incensed with anger, inflamed with desire, fallen into an error*, are all metaphorical expressions, used in a way of similitude; and yet perhaps no proper words can be made use of, which will convey a more lively image of the thing we design to represent by them.

But *beauty* and ornament, as was observed before, have been another cause of the use of tropes. Some subjects require a more florid and elegant dress than others. When we describe or applaud, ornaments of speech and a gaiety of expression are requisite. And it is the business of an orator to entertain his hearers at the same time that he instructs them. Now Cicero, who was an admirable judge of the force and power of eloquence, has observed, that tropical expressions give the mind the greatest delight and entertainment. "I have often wondered (says he) why tropes should give greater pleasure than proper words. I imagine the reason must be, either that there is an appearance of wit in neglecting what is at hand, and making choice of something at a distance; or that the hearer is furnished with a different thought, without being led into a mistake, which affords a very agreeable pleasure; or that a whole similitude is conveyed to the mind by a single word; or that, particularly in the best and most lively metaphor, the image is presented to our sight, which is the quickest of our senses." And therefore he supposes, that "as garments were first invented from necessity, to secure us from the injuries of the weather, but improved afterwards for ornament and distinction; so the poverty of language first introduced tropes, which were afterwards increased for delight." Besides, a variety of expression is pleasing in a discourse. It is many times necessary that the same thing should be repeated; and if this be done in the same words, it will grow tiresome to the hearers, and sink their esteem of the speaker's ability. Therefore, to prevent this, it is proper the expression should be varied, that although the sense be the same, it may give the mind a new pleasure by its different dress.

We come now, in the last place, to lay down some directions proper to be observed in the choice of tropes.

And first, as every trope gives us two ideas; one, of the word expressed; and another, which, by means of that, the mind connects with it; it is necessary, that the relation between these two appear very plain and evident. For an obscure trope is always faulty, unless where some particular reason makes it necessary. And therefore tropes ought not to be too far-fetched, lest that should render them dark. For which reason Cicero says, he should not choose to call any thing destructive to a person's fortune, *the Syrtis of his patrimony*, but rather *the rock of it*; nor *the Charybdis of his estate*, but *the gulph of it*. For those who either did not know that the Syrtes were two quicksands upon the coast of Africa, or that Charybdis was a gulph in the strait of Sicily, both of them very destructive to mariners, would be at a loss to understand the meaning of the metaphor. Besides, metaphors taken from things we have seen, affect the mind more forcibly than those which are taken from such things as we have only heard of. Now there is scarce any one who has not seen a rock or a gulph; but there are very few persons, comparatively, who have been either at

Elocution. Charybdis or the Syrtes. It is necessary therefore in a good trope, not only that there be a near affinity between the two ideas, but likewise that this affinity be very obvious and generally known, so that the word be no sooner pronounced but both images do immediately present themselves to the mind.

Again, as a trope ought to be very plain and evident, so likewise should it bear a due proportion to the thing it is designed to represent, so as neither to heighten nor diminish the just idea of it. Indeed, sometimes when we speak of things indefinitely, we say too much, lest we should seem to say too little. And this manner of speaking is called an *hyperbole*, which is not uncommon in the sacred writings. So, for instance, Saul and Jonathan are said to be *swifter than eagles, and stronger than lions*. But even in this way of expression a proportion is to be observed. For some very considerable and unusual excess of the thing in its kind is at least designed by it; which, perhaps, cannot, or however is not necessary to be defined. And therefore Quintilian blames Cato for calling the top of an hill a *wart*; because the proportion between the two ideas is nowise adequate. And so, on the contrary, Aristotle censures Euripides for calling rowing *the empire of the oar*. Poets indeed are allowed a greater liberty in this respect; but an orator should be modest in his expressions, and take care that he neither so heighten nor diminish the natural ideas of things by tropes, as to lead his hearers into mistakes.

But further: As a moderate use of tropes, justly applied, beautifies and enlivens a discourse; so an excess of them causes obscurity, by running it into abstruse allegories and riddles. Tropes are not the common and ordinary dress of our thoughts, but a foreign habit: and therefore he who fills his discourse with a continued series of them, seems to act like one who appears in public in a strange dress; which no man of character would choose to do.

Moreover, as one use of tropes is pleasure and entertainment, we should endeavour to make choice of such as are smooth and easy. But if at any time we think it necessary to use a harsh trope, it is proper to soften it by some precaution. For, as Cicero very handsomely says, *a trope should be modest, since it stands in a place which does not belong to it; for which reason it should seem to come thither by permission, and not by force*. And therefore, when he thought it harsh to say, *The death of Cato made the senate an orphan*; he guards the expression by saying, *The death of Cato has (if I may be allowed to say so) rendered the senate an orphan*.

And, to add no more, care should be taken how we transfer tropes from one language into another. For as they are frequently taken not only from natural things, or such notions as are common to the generality of mankind, but likewise from the manners, customs, and occurrences of particular nations; so they may be very plain and obvious to those among whom they took their rise, but altogether unintelligible to others who are unacquainted with the reason of them. It was customary for the Roman soldiers to carry their money in their girdles; hence it was the same thing with them to say, *a person had lost his girdle*, as that *he had lost his money*. And because the Romans wore the *toga*, which was a long gown, in time of peace, and a different garb when engaged in war, their writers

Elocution. ters sometimes use the word *toga* to signify peace. But as neither of these customs is in use among us, so neither would the tropes suit our language, or be generally understood by us. And even in such tropes as are taken from the common nature of things, languages very much differ. There is a very beautiful trope in the account of St Paul's shipwreck, where it is said, *The ship was caught, and could not bear up into the wind.* The original word, that we translate *bear up*, is *αντορθαμην*; and properly signifies, *to look or keep its eyes against it*; which is a very strong and lively image, taken from animate beings, and when applied to men often signifies *to withstand or resist*: as, *αντορθαμην πολεμω*, *to resist an enemy*; and Plutarch says of Demosthenes, that he could not *αντορθαμην τω αργυριω*, *look against or resist the power of money*. Nothing is more common with Latin writers, than to call men of a public spirit and true patriots, *lumina et ornamenta rei-publicæ*, that is, *the lights and ornaments of the state*. And we have borrowed from them the use of both these metaphors. But because tropes and figures illustrate and heighten the style, they call them also, *lumina orationis*, or *the lights of a discourse*. It sometimes happens, that only the tropical sense of a word is taken from one language into another, and not the proper signification of the same word. So *scrupulus* in Latin properly signifies *a little stone, which getting into the shoe hurts a person as he walks*; hence it is applied to the mind, and used to express *a doubt, or uneasy thought that gives it pain*. We have borrowed this latter sense of the word, but not the former.

ART. I. PRIMARY TROPES.

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Metaphor,
what.

I. Metaphor. A metaphor, as usually defined, is, *A trope, which changes words from their proper signification to another different from it, by reason of some similitude between them.* But that a word, when used metaphorically, does not alter its signification, but retains its proper sense, was shown above. However, it may not be amiss to explain this matter more fully, and set it in a clearer light. Every metaphor, then, is nothing else but a short similitude. Cicero calls it, *a similitude reduced to a single word*. And Quintilian to the same purpose says, that "a metaphor is a short similitude, and differs from it only in this, that the former is compared to the thing we design to express, and the latter is put for it. It is a similitude, when I say of a man, he has acted like a lion; and a metaphor, when I say, he is a lion." Thus far Quintilian. Now in every similitude three things are requisite; two things that are compared together; and a third, in which the similitude or likeness between them consists. And therefore, to keep to this example, when Horace calls a Roman soldier *a lion*, if the word *lion* did not retain its proper sense, there could be no similitude; because there would not be two things to be compared together with respect to a third, which is necessary in every similitude, and was designed by this expression. The sense of which is plainly this: *That as a lion seizes his prey with the greatest fierceness, so a Roman soldier with like rage and fury attacked his enemies.* In the same manner, when Cicero calls Piso *the vulture of the province*, his meaning is, that he was like a vulture, or acted in such a manner as a vulture acts, that is, rapaciously. So that the real difference between a meta-

Elocution. phor and a similitude consists in this; that a metaphor has not those signs of comparison which are expressed in a similitude. But some persons have run into mistakes in reasoning from tropes of this kind. For they have so argued from metaphorical words, as if all the affections and properties of the things expressed by them might be attributed to those other things to which they are applied, and by that means have strained the comparison (which has usually but one particular view), in order to make it tally in other respects, where there is not that similitude of ideas. We will endeavour to make this evident by another example from Cicero, where he calls M. Antony *the torch of the state*. The similitude between Antony and a torch lay in this: *That as a torch burns and destroys every thing within its reach, so Antony brought devastation and ruin wherever he came.* Now a torch has not only a property to burn, but also to give light; but the similitude would not hold in this respect, nor was it at all designed. For Cicero never calls a wicked profligate man, as Antony was, *the light of the state*; though he often gives that character to good and virtuous men, who by their examples do as it were enlighten others, and show them the way to be happy themselves and useful to others. But though metaphors are usually taken from a similitude between two things, as in the instances here mentioned; yet sometimes they are founded in the similitude which two things bear to two others in some particular respect, by means whereof what properly belongs to one of them is transferred to the other: the former of which are called *simple metaphors*, and the latter *analogous*. Hence the rudder of a ship may be called its *reins*; for what the reins are to a horse, that the rudder is to a ship in guiding and directing it. So that here is a double similitude, one between a ship and an horse, and another between the rudder of the former and the reins of the latter; and from the analogy between the use of the rudder to the one and reins to the other, the reins, which belong properly to the horse, are applied to the ship. Again, some metaphors are reciprocal, in which the similitude holds either way. Thus to steer and to govern are used reciprocally both of a ship and a state: the proper expressions being, *to steer a ship*, and *govern a state*; and the contrary metaphorical. But though we say, *the foot of a mountain*, borrowing the similitude from animals; yet we do not say, on the contrary, *the bottom of an animal*, meaning his feet; and therefore that metaphor is not reciprocal. From this account therefore of the nature of a metaphor, it may be said to be, *The application of a word by way of similitude to some other thing than what it properly signifies.* And the plainer this similitude appears, the greater beauty there is in the trope.

The use of metaphors is very extensive, as large as universal nature. For there are scarce any two things which have not some similitude between them. However, they may all be reduced to four kinds; which was the second thing proposed to be considered.

The first kind of metaphors therefore may be taken from similitudes between animate beings. As where those things, which properly relate to brutes, are accommodated to men; or those which belong to men are applied to brutes. Of the former sort is that joke of Cicero: *My brother being asked by Philip, why he barked?*

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barked so? answered, *Because he saw a thief.* Here *barking*, the property of a dog, is applied to a man: And the reply does not seem to carry more severity or harshness with it than the question. By the latter sort we say, *a crafty fox*, and *a generous horse*; which are affections that properly relate to men. And to this kind of metaphors may those likewise be referred, when that which properly belongs to the senses is applied to the mind. Thus we often say *that we see a thing*, when we mean *that we understand or apprehend it*. And in the same sense we say, *that we hear such a thing*, or *person*. And by the like manner of expression, a person is said *to smell out a thing*. And those who have a genius or disposition for any art or science, are said *to have a taste for it*; and such as have entered upon the study of it, are said *to have a touch of it*. These are common ways of speaking in most languages, and very expressive of what is intended by them. And we may also bring those metaphors under this head, by which the properties and affections of men are attributed to the Deity: as, when God is said *to hear, see, be angry, repent*, and the like; which are forms of expressions very frequent in the sacred writings.

A second kind of metaphors lies between inanimate things, whether natural or artificial, which bear some similitude to each other. And this head is very extensive. Thus we say, *floods of fire*, and *clouds of smoke*, for large quantities. And so likewise, *to inflame an account*, that is, to heighten or increase it; with innumerable others of the like sort. In the two first of these instances, the terms proper to one element are applied to another; and as those elements of fire and water are opposite to each other, they show the extensiveness of this trope, that there are no things in nature so contrary, but may come within the limits of it, and be accommodated to each other in a way of similitude. In the last example, a natural action is applied to what is artificial.

A third sort of metaphors is, when inanimate things are applied to animals, on account of some like properties between them. Thus Homer calls Ajax, *the bulwark of the Greeks*, on account of his valour, which like a wall defended them from the Trojans. And nothing is more common with Cicero, than to brand ill men with the character of being *the pest of the state*, by reason of the mischief which they bring to the public. So likewise he calls Zeno the philosopher *an acute man*, for his great discernment and quick perception of things; fetching the allusion from metals when brought to an edge or a point. As, on the contrary, old Chremes in Terence calls himself *a stone*, for want of apprehension. And we say, *a gay person*, and *a bright genius*, by this kind of metaphor.

The fourth and last kind of metaphors is that by which the actions and other attributes of animals are accommodated to inanimate things. Thus Cicero, speaking of Clodius, says: "The very altars, when they saw that monster fall, seemed to move themselves and assert their right against him. Here the words *saw, move, and assert*, are all metaphors taken from the properties of animals. And Virgil, when he would represent the impetuous force and rapidity of the river Araxes, says, *it disdained a bridge*. And it is a very usual epithet, which Homer gives to words, to call

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them *ὑποπόδια*, or *winged*, to intimate the swiftness of speech.

Lastly, as to the choice of metaphors, those are esteemed the finest and strongest, which *give life and action to inanimate things*. The reason of which is, because they do as it were invigorate all nature, introduce new forms of beings, and represent their images to the sight, which of all the senses is the quickest, most active, and yet most unwearied. What can be more moving, or in stronger terms express the villany of Clodius, than when Cicero says, "The very altars of the gods seemed to exult at his death." And the same great orator particularly commends those metaphors, for their sprightliness and vivacity, which are taken from the sense of seeing; as when we say *a bright thought* or *a gay expression*.

However, care must be taken not to venture upon too bold and daring metaphors. Poets indeed claim greater liberty in this respect, whose view is often to amuse, terrify, or delight, by heightening the just and natural images of things. But it is expected the orator should reason coolly, though strongly and forcibly; and not by theatrical representations so transport the mind, as to take it off from reflection, unless perhaps on some particular occasion. And yet, on the other hand, metaphors ought not to sink below the dignity of what they are designed to express; but the idea they convey should at least be equal to the proper word in the place of which they are substituted.

But there is a very great difference in the choice of metaphors, as they are designed either to praise or dispraise. One thing may be compared to another in a great variety of respects. And the same thing may be made to appear either noble or base, virtuous or vicious, by considering it in a different light. Such metaphors, therefore, as are chosen to commend, must be taken from great and laudable things; and on the contrary, those which are designed to discommend, from things vile and contemptible. Aristotle gives us a very pleasant example of this in the poet Simonides. A certain person, who had carried the prize at a race of mules, offered him a reward to write a poem in honour of that action. Simonides thought he did not bid high enough; and therefore put him off with saying, the subject was too mean to write in praise of mules, which were the offspring of asses. But upon his being offered a larger sum, he undertook the task; and, as Aristotle observes, when he has occasion to speak of the mules in that poem, he does not mention them by that name, but calls them *the daughters of fleet and generous horses*, though he might with as much propriety have called them *the daughters of dull asses*. But it was the poet's business, in praising, to take the most advantageous part of the character. Where things are capable of such different turns, metaphorical expressions are generally most beautiful. And sometimes the same metaphor may be applied contrary ways, both in praise and dispraise, as it will suit different properties of the thing to which it refers. So a *dove*, in a metaphorical sense, may represent either *innocence or fear*; and an *iron heart* may denote either *courage or cruelty*; as an *hard head*, *strength or weakness of thought*. And this ambiguity in the application of metaphorical words often affords occasion for jests

Elocution. jests and concise wit. We observed before, that Cicero never calls ill men, *lights of the state*. But he once in this manner calls Sextius Clodius *the light of the senate*. For when his kinsman Publius Clodius had been killed by Milo, and his corpse was brought to Rome, Sextius raised the mob, and in a tumultuous manner carried it into the senate-house, where they burnt it, and by that means set the building on fire: For which seditious action Cicero passes that joke upon him, under the metaphor of light, which elsewhere he always uses in a good sense.

But to proceed: All forced and harsh metaphors should be avoided; the one being no less disagreeable to the mind than the other to the ear. Nor should they come too thick in a discourse. In a word, they ought not to be used, but either where a proper word is wanting, or they are more significant or beautiful than the proper word.

⁵⁵ Metonymy defined and explained. II. *Metonymy*. This, as defined by Quintilian, is, *the putting one word for another*. But Vossius describes it more fully, when he calls it, "A trope, which changes the name of things that are naturally united, but in such a manner as that one is not of the essence of the other." That a metonymy is thus distinguished from the other tropes, has been sufficiently shown already in the two last chapters. When it is said, *to put one word for another*, or, *to change the names of things*, the meaning is, that the word so used changes its sense, and denotes something different from its proper signification. Thus, when *Mars* is put for *war*, and *Ceres* for *corn*, they lose their personal sense, and stand for the effects of which those deities were said to be the cause. So likewise, when Virgil says,

He drank the frothing bowl,

the word *bowl* must necessarily signify the liquor in the bowl. And when in another place, describing the temple of Juno at Carthage, in which the actions of the Trojan war were represented, and the images of the heroes, he makes *Aeneas*, upon discovering that of *Priam* among the rest, cry out,

Lo here is Priam;

it is plain the word *Priam* there must stand not for his person, but his *image* or *figure*. And this property of changing the sense of the word appears peculiar to metonymy. In treating upon a metaphor, we observed the mistake of those who teach, that a word used metaphorically loses its proper signification; whereas it only changes its place, but not its sense; being applied to a thing to which it does not naturally belong, by way of similitude. And as the not attending to this has run some persons into very great absurdities, in treating upon metaphorical expressions, and reasoning from them in the tropical sense; so the like has happened to others in some instances of a metonymy, where, by misapprehending their true nature, they have reasoned from them in the literal sense, as we shall show presently. A metonymy is not so extensive as a metaphor, nor altogether so necessary: because nothing is said by a metonymy, which cannot be expressed in proper words; whereas metaphors are often used for want of proper words to express some ideas. However, metonymies are very useful in language; for they enrich a discourse with an agreeable variety, and

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Elocution. give both force and beauty to an expression. And what we observed with relation to a metaphor, is true also of this trope; that some metonymies, even in common discourse, are more frequently made use of than the proper words in whose room they are put. So, *pale death*, *a blind way*, and *a happy state*, are very common expressions with us. And it is more usual to say, *This is such a person's hand*, or *I know his hand*, than his writing, when we intend this latter sense of the word.

We now proceed to the division of metonymies; which are commonly distinguished into four kinds, from the different manner in which things are naturally, but externally, united to one another. Now things are thus united, or one thing depends upon another, either with respect to its production, or in the manner of its existence when produced. In the former way the effect depends upon its cause, and in the latter the adjunct upon its subjects. And hence arise four sorts of metonymies, which receive their names from the *cause* and *effect*, the *subject* and the *adjunct*.

It is called a *metonymy of the cause*, when the external cause is put for the effect. The external cause is twofold, the agent and end, which are usually called the *efficient* and *final cause*. Of the former kind are such metonymies, where the inventor or author is put for what was invented or effected by him. Thus, as we said before, *Ceres* is sometimes put for *corn*, the use of which she was said first to have introduced; and *Mars* for *war*, over which he was thought to preside. And by this way of speaking, any artist or writer is put for his work. So Juvenal, blaming the luxury and profuseness of the Romans, says, *There are few tables without Mentor*; that is, which were not made by him, or after his manner. And our Saviour says, in the parable of the rich man and Lazarus, *They have Moses and the prophets*, meaning the books of Moses and the prophets. But under this sort of metonymy is included not only the agent, strictly so called, but also any means or instruments made use of in the doing of thing, when put for the thing done. Thus, *polite literature* is called *humanity*, because it cultivates and improves the human mind. And in that expression of Cicero, *Words move nobody but him who understands the tongue*; the word *tongue*, which is the instrument of speech, is put for *speech* or *language*. And in the like sense, *arms* are sometimes put for *war*, and the *sword* for *slaughter*. By the same kind of metonymy likewise any affection or quality is put for its effect. As when it is said, *the end of government is to maintain justice*; that is, *such mutual offices among men as are the effects of justice*. And so likewise in that of Cicero, *It is the business of magistrates to check the levity of the multitude*, by which he means tumults occasioned by their levity. Moreover, as human affections are attributed to the Deity in a metaphorical sense, so several parts of the human body are likewise ascribed to him by this kind of metonymy. Thus, his *hand* and his *arm* are used to express his power, as his *ear* and *eye*, his *care* and *providence*, these being the instruments of such effects in mankind. Metonymies of the final cause are those by which the end in doing a thing is put for the thing done. As when we say, *The watch is set*, meaning the *watchmen*, who are appointed for that purpose. And so likewise

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Elocution. that expression, to make an example, as it signifies to punish, in order to deter others from the like crimes by such an example. As also that of Virgil,

Phyllis should garlands crop;

by which are meant *flowers* to make garlands.

The second kind of metonymy puts the effect for the efficient cause, whether the agent, or only the means and instrument. So Virgil calls the two Scipios the destruction of Libya, because they were the agents who effected it. And Horace compliments his patron Mæcenas with the titles of being his guard and honour; that is, his guardian, and the author of his honour. But when Cicero tells the citizens of Rome, that the death of Clodius was their safety, he means the occasion only of their safety. And elsewhere he calls that a dark hope and blind expectation, the effect of which was dubious and uncertain to those who entertained it. And in like manner, the sons of the prophets, when they were eating the pottage which Elisha had ordered to be set before them, cried out, *There is death in the pot*; that is, some deadly thing, as is presently after explained. And thus sweat, which is the effect of labour, is sometimes put for labour. As in the threat denounced against Adam, *In the sweat of thy face shalt thou eat bread*, that is, by labour in cultivating the ground. And, in allusion to this way of speaking, Antony the orator tells Crassus, "the improvement of the style by constant exercise, as he prescribed, was a thing of much sweat." And *virtue is said to be gained by sweat*, that is, continued care and exercise in subduing the passions, and bringing them to a proper regulation. But in these two expressions there is likewise a metaphor, the effect of bodily labour being applied to that of the mind. In all these instances, the effect is put for the efficient cause.

The third kind of metonymy is, when the subject is put for the adjunct. By subject here, in a large sense of the word, may be understood that wherein some other thing is contained, or about which it is conversant; as likewise the possessor with respect to the thing he possesses; and the thing signified, when put for the sign of it. Now, by the first of these ways of speaking, the seat of any faculty or affection is used for the faculty or affection itself. So it is usual to say, *a man of a clear head*, when we mean a clear mind or understanding; the seat of the mind being supposed to be in the head. And a person is said to have a warm heart, because the heart has been thought the seat of the affections. In like manner, the place where any actions are performed is put for the actions done in it. As when Cicero says, "Do not always think of the forum, the benches, the rostra, and the senate;" meaning the discourses which were usually made in those places. So likewise the country, or place of residence, is put for the inhabitants, as in that passage of Cicero: "And to omit Greece, which always claimed the pre-eminence for eloquence, and Athens, the inventress of all sciences, where the art of speaking was invented and perfected; in this city of ours, (meaning Rome), no studies have prevailed more than that of eloquence:" where the words Greece and Athens stand to denote the inhabitants of those places. And hither may also be referred those expressions in which the time is put for the persons living in it; as,

Elocution. the degeneracy of the present age, the virtue of former times.

In the second way above-mentioned, the object is used for the person or thing employed about it: As when Cicero says, "In time of battle the laws are silent;" where by *laws* he intends the judges, who pronounce sentence according to law. By the third of these ways, in which the possessor is put for the thing he possesses, we say, to devour, destroy, or ruin a man, meaning not his person but his estate. And mythologists explain the fable of Actæon by this trope, who is said to have been devoured by his dogs: for by dogs they understand flatterers and parasites, who consumed his estate, and brought him to beggary. By the last way before recited, which puts the thing signified for the sign, statues and pictures are called by the names of the persons which they represent; as in that jest of Cicero upon his brother Quintus, when, as Macrobius relates, "being in the province which his brother had governed, and seeing a large portrait of part of his body, holding a shield, though Quintus was but a little man, he said, My half brother is bigger than my whole brother." The Popish doctrine of transubstantiation is founded upon an abuse of this trope. For when our Saviour, speaking of the bread and wine at that time before him, says, "This is my body, and this is my blood," his plain meaning is, they were the signs of his body and blood, the thing signified being put for the sign by this sort of metonymy. But the Papists take the expression literally, which must doubtless be very absurd; since the words relate to the time then present, while Christ was yet living, and spoke them; when it was impossible for the bread and wine to be converted into his body and blood, it being evident to all who were present, that those elements, and his body, existed separately at the same time. But if the words are explained by this trope, the sense is plain and easy, and the way of speaking familiar to all writers. Whereas they who plead for the literal sense might with equal reason assert, that those expressions above-mentioned are to be taken literally, in which several parts of the human body, as the hand, the arm, the ear, and the eye, are ascribed to the Deity; or that, when our Saviour in a metaphorical sense calls himself a vine, and a door, these words were designed to be applied to him strictly and properly, and not by way of similitude only, as is the case in all metaphors.

The fourth kind of metonymy is that wherein the adjunct is put for the subject, which is done in the same variety of ways as the former. It is therefore a metonymy of the adjunct, when the thing contained is put for that which contains it. As when Virgil says, "They lie down upon purple;" that is, upon couches dyed with purple. And again, "They crown the wine;" meaning the bowl which contained the wine, it being the custom of the ancients to deck their bowls with garlands at their entertainments. By these tropes likewise virtues and vices are put for the persons in whom they are found. As in that beautiful passage of Cicero, where, comparing the profligate army of Catiline with the forces of the state, he says, "On this side modesty is engaged, on that impudence; on this chastity, on that lewdness; on this integrity, on that deceit; on this piety, on that profaneness; on this constancy, on that fury; on this honour, on that baseness; on this moderation, on that unbridled passion;

in

Elocution. in a word, equity, temperance, fortitude, prudence, and all virtues, engage with injustice, luxury, cowardice, rashness, and all vices." And to this trope those expressions are to be referred, in which any thing is put for the object about which it is conversant. As in that saying of the wise man, "Hope deferred makes the heart sick;" where hope is put for the thing hoped for. And thus Suetonius calls the emperor Titus *the love and delight of mankind*, whose mild and obliging temper rendered him the object of those agreeable affections to all persons under his government. A third use of this trope is by putting a thing for the time in which it was done. Thus we say of a person, *he has served so many campaigns*, meaning so many summers, that being the usual time in which armies are drawn out into the field. Lastly, by this metonymy, the sign is put for the thing it signifies; as, *the sceptre for the regal dignity*, and *the sword for the authority of the magistrate*.

56
Synecdoche explained.
III. *Synecdoche.* This is a trope by which either the whole of a thing is put for a part of it, or a part for the whole; so that the two things, whose ideas are presented to the mind in this trope, are internally related to each other: by which, as has been shown already, it is distinguished from all the other tropes. In a *synecdoche* the word retains its proper sense, and the expression is elliptical, as will appear by the several species of it, wherein the ellipsis in most of the examples is very obvious, and may with no great difficulty be supplied. Now a thing may be considered as a whole in three different respects, which logicians call an *universal, essential, and integral whole*. An universal whole is any genus with regard to its several species; as, an *animal* with respect to *mankind and brutes*, or *philosophy* with respect to the several *arts and sciences* comprised under it. An essential whole consists of matter and form; as, a *man* of *body and soul*. And an integral whole is any body or quantity, with respect to the several parts of which the matter of it is composed, and into which it may be divided: as, an *human body* with respect to its *several members*; or a *year*, as divisible into *months, weeks, and days*. And thus rhetoric is an integral whole in respect to the four parts that compose it; namely, invention, disposition, elocution, and pronunciation. So likewise any aggregate body, as a civil community, which is divisible into those who govern and are governed; or any army, consisting of the general and his soldiers. As a whole therefore, in each of these acceptations of the word, is frequently put for a part, and a part for the whole; hence arise six species or sorts of *synecdoche*.

The first of these puts the genus for the species.—Thus, virtue in general is sometimes used to denote some particular sort of virtue. As when Cicero mentions virtue as one of the four qualifications necessary in a general, he means greatness of mind. And so persons are often commended for instances of virtue shown in their conduct, which respect only some single virtue, as justice, temperance, or the like: And in this sense Cicero calls Clodius *a deadly animal*. So when our Saviour commissions his apostles to *preach the gospel to every creature*, the meaning is, *every rational creature*. And thus likewise, to *talk to a person* some-

times denotes the same thing as to *blame him*, which is *Elocution.* one way of talking.

The second kind of *synecdoche* puts the species for the genus. Thus *bread* denotes any kind of food: as when a person is said to *get his bread by his labour*. In the same way of speaking, *money* is put for any kind of wealth in general. And it is an usual expression to say, that *wine destroys more than the sword*; that is, than any *hostile arms*. And the legal form of banishment among the Romans was, to prohibit persons *the use of fire and water*; that is, *the most common and ordinary necessities of life*, in which all others were included.

The third species of this trope is, when the essential whole is put for one of its parts; that is, either for the matter or form. Thus, in the evangelist, Mary Magdalen says, *They have taken away my Lord, and I know not where they have laid him*, meaning his *body*.—So it is usual to say of a deceased person, *He was buried at such a time*. And in the inscriptions of sepulchral monuments we frequently meet with this expression, *Here lies such an one*; that is, his *corpse*. Nor are instances uncommon in which the whole being is put for the form. Thus when Cicero says, *Those persons live, who have fled from the confinement of the body, as from a prison*; by *persons* must necessarily be understood their *souls*, which are here distinguished from and set in opposition to their *bodies*. And so Virgil represents Æneas as meeting with Dido and some of his Trojan friends in the infernal regions; by which are meant their *ghosts*.

The fourth kind of *synecdoche* is, when either the matter or form is put for the whole being. Thus *silver and gold* are used to signify money made of those metals; as when we say, *I have so much silver, or so much gold*. And the word *soul*, both in our own and other languages, is put for the *whole person*. So with us, a *merry soul*, and a *dull soul*; in Cicero, *dear souls*; and in Horace, *candid souls*, are all used in this tropical sense. But this way of speaking occurs nowhere more frequently than in the sacred writings. Thus, for instance, it is said, *All the souls which came with Jacob into Egypt*, meaning the *persons*. And again, *The soul that sinneth it shall die*; from which expression, and others of the like import, some persons, by not attending to the nature of this trope, have been erroneously led to infer that the soul is naturally mortal. But sometimes only part of the matter stands to express the whole essence or being. So we imitate the Latins in using the word *caput* or *head* to denote either a *person* or *thing*. For, as with them *lepidum caput*, so with us a *witty head*, signifies the same as a *man of wit*. And in the same sense, *so many head of cattle* means *so many entire cattle*.

By the fifth sort of *synecdoche*, the whole of any material thing or quantity, whether continued or discrete, is put for a part of it. So when Cicero says, *A war is kindled through the whole world*, in compliment to his country, he calls the Roman empire *the world*. And this expression is also used by historians. Thus Cornelius Nepos, speaking of the quarrel between Mark Antony and Augustus, tells us, that *each of them desired to be lord of the world*. And in like manner St Luke says, *There went out a decree from Caesar Augustus,*

Elocution.

Augustus, that all the world should be taxed. So in St Paul's shipwreck, it is said, *They ran the ship aground*, that is, *the head of her*, for it is plain by what follows, that the stern was loose. And as to discrete quantity, our Saviour, using this trope, said he should be *three days and three nights in the heart of the earth*. Though he did not continue three whole days and nights in the grave, but only part of the first and third day, and the whole second day, with the two whole nights between the first and third day, according to our way of reckoning. For he was buried on Friday in the afternoon, and rested in the grave that night, with the following day, which was the Jewish Sabbath, and was risen on the morning of the next day. So that we must necessarily have recourse to this synecdoche, which puts the whole for the part, to clear up that event.

By this kind of synecdoche, also, the plural number is sometimes put for the singular. Thus St Matthew says, *The thieves who were crucified with our Saviour reviled him*: though it is plain from St Luke, that only one of them did so. It may also be referred to this trope, when a certain number is put for an uncertain one. So it is an usual way of expression to say, *I have seen or done such a thing an hundred or a thousand times*; when perhaps so many are not really intended, but only in general some considerable number.

The sixth and last kind of synecdoche puts a part of any material thing or quantity for the whole of it. So we say of a man, *He shelters himself under such an one's roof*; that is, *in his house*. And of a fleet, that it *consists of so many sail*; meaning, *so many ships*. And by this trope, that is ascribed to a single person which was done by the assistance of others, and in conjunction with them: As when it is said, that *Hannibal killed forty thousand Romans at the battle of Cannæ*: For an army is an aggregate body, of which the general is the head, and consequently the chief part of it. And to this kind of synecdoche may also be referred such expressions in which the singular number is put for the plural: as if one should say, *A man is liable to be misled by the influence of irregular passions*; meaning *all men*, or *mankind in general*. Or when less than the real number is put for any round number: Thus some ancient writers, when they speak of the Grecian armada that came against Troy, call it a *fleet of a thousand ships*; though, according to Homer's list, it contained 1186. And so likewise the Greek interpreters of the Old Testament are usually called the *Seventy*; whereas, in reality, they were seventy-two.

57
Irony defined and illustrated.

IV. *Irony*. This is a trope in which one contrary is signified by another: As if any one should say, *Well done*; when at the same time his design is to intimate that the thing was *ill done*. So that, by this manner of expression, the speaker appears to mean something contrary to the sense of the word he makes use of. Not that the word is changed from its usual signification; but by the circumstances attending the expression, we perceive the contrary to what is spoken is intended. Quintilian observes, that an irony may be known one of these three ways: "By the manner of pronunciation, or from the nature of the person or the thing. For (as he adds) where any of these do

not suit with the words, it is plain the speaker intends the contrary." The irony is very plain from the manner of pronunciation in that passage of Terence, where Simo, speaking to his servant by way of reproof, says, "You have taken great care indeed." From the circumstances of the person, when Cicero, addressing to Catiline, says, "He went to your companion, that excellent man, Marcus Marcellus." When he calls him an *excellent man*, it is evident he means the contrary; because no good man would be a companion of Catiline. And when he begins his oration for Ligarius with saying, "Cæsar, this is a *new* crime, and never heard of till now," the thing he is speaking of shows it to be an irony; for it was not new, as all who were present very well understood.

The subjects of irony are vices and follies of all kinds. And this way of exposing them is often more effectual than serious reasoning: For many persons, who, either from temper or want of reflection, cannot be moved by the force of an argument, are not proof against the poignancy of wit and raillery. And therefore we find the most grave and serious persons have not declined the use of this trope upon proper occasions. Socrates, whom the oracle pronounced the wisest man of his age, gave so much into it, that he got the name of *ωῤῥῶς*, that is, the *droll*. In the sacred writings we have a remarkable instance of it in the prophet Elijah, where he challenges the priests of Baal to prove the truth of their deity: For it is said expressly, "He mocked them, and said, Cry aloud, for he is a god; either he is talking, or he is pursuing, or he is on a journey, or peradventure he sleepeth, and must be awaked." And Solomon takes the like method to expose the follies of youth by this ironical apostrophe, "Rejoice, O young man, in thy youth," with what follows, which is all ironical. Nay, our Saviour himself thought fit thus to reprove the Jewish doctors, when he says, "Full well ye reject the commandment of God, that ye may keep your own tradition:" Where, by the words *full well*, or, as it is in the original, *καλῶς*, it is very evident that a severe reprimand was intended.

An irony is used on a variety of occasions, as we shall show from some instances in Cicero. Sometimes he applies it in a way of jest and banter: As when he says, "We have much reason to believe the modest man would not ask him for his debt, when he pursues his life." At other times by way of insult and derision: Thus when he would represent the forces of Catiline as mean and contemptible, "O terrible war, (says he), in which this band of rakes are to march under Catiline! Draw out all your garrisons against this formidable body." Again, at other times, to give the greater force to his argument, he would seem as it were by this trope to recal and correct what he had said before; as in his oration for Milo: "But it is foolish in us to compare Drusus, Africanus, Pompey, and ourselves, with Clodius; all our calamities were tolerable, but no one can patiently bear the death of Clodius." Now the character of Clodius was so well known, that all who were present must be sensible he meant the contrary. And, to name no more, an irony is never used to greater advantage, than when it is followed immediately by something very stinging.

Thus,

Elocution. Thus, speaking of Piso, he says, "You have heard this philosopher: he denies that he was ever desirous of a triumph." And then addressing himself to him, he immediately adds, "O wretch! when you destroyed the senate, sold its authority, subjected your consulate to the tribune, overturned the state, betrayed my life and safety for the reward of a province; if you did not desire a triumph, what can you pretend you did not desire?" This must effectually confound the false gravity at that time assumed by Piso.

Art. II. SECONDARY TROPES.

58 **Secondary Tropes** are so called, because they are all of the same nature with the former, and may be referred to some or other of them, though they have received different names.

59 They are chiefly eight in number; *Antonomasia*, *Communication*, *Litotes*, *Euphemism*, *Catachresis*, *Hyperbole*, *Metalepsis*, and *Allegory*. The three first of these are simple tropes, and may all be referred to a *Synecdoche*. But the five last are of a mixed or complex nature, and not confined to any one of the primary tropes; as will appear in treating upon them in order.

59 I. A common or general word is sometimes used for the proper name of some particular thing or person which upon any account is eminent and remarkable. So we say, *He is gone to the city*, or *he came from the city*, that is, *London*. And by the *Scriptures* we mean the *Bible*. So likewise, in speaking of persons, the *orator* is used for Cicero, the *poet* for Homer or Virgil, and the *philosopher* for Aristotle: and it is not unusual to say the *apostle*, when we mean St Paul. On the contrary, the proper names of things or persons are sometimes applied to any other of the same character. Thus we use the word *gospel* for any certain and undoubted truth. And *Carthaginian faith* proverbially stood for the greatest falsehood and deceit among the Romans. With the Greeks, *Hercules* signified a *strong man*, *Nestor* a *wise man*, and *Irus* a *beggar*; and the names of *Samson*, *Solomon*, and *Job*, now answer the like characters. Both these ways of expression are often very emphatical, and heighten the idea more than where things are expressed by their own name. To call a good orator *Cicero*, or an excellent poet a *second Virgil*, includes not only an encomium upon the arts themselves, but leads the mind to what is most perfect in them, and was peculiar to those persons. These forms of speech are called *antonomasia*, and come properly under a *synecdoche*; for in the former the whole is put for a part, and in the latter a part for the whole.

60 II. Nothing is more common with orators, than a change of persons. Sometimes, to avoid envy, and prevent the imputation of pride, in assuming to themselves the praise of any laudable action, they ascribe it to their hearers, and do not say, *we*, but *ye did so* and *so*. At other times, when it is necessary to remind them of something which they have done amiss, or to caution them against some wrong step for the future; to prevent giving offence, they take it upon themselves, or at least join themselves with them, and do not say, *you have done this*, or *do not you do this*; but,

we have done it, or *let us not do it*. And again, at other times, in compliment to their hearers, they join them as partners in the commendable actions or virtues of other persons; as when the whole body of the people is brought in to share the praise arising from the success of wise counsels or victorious arms. Such ways of speaking often occur both in Demosthenes and Cicero. They are called *communication*, and come properly under a *synecdoche* of the whole.

III. On the contrary, there is a mode of speech, in which, by denying the contrary, more is intended than the words express. This way of speaking is called *litotes*; and is often used for sake of modesty where a person is led to say any thing in his own praise, or to soften an expression which in direct terms might sound harsh or give offence. As if one should say, *I do not commend you for that*; meaning, *I greatly discommend or blame you for it*: where more being understood than the words expressly denote, it is properly a *synecdoche* of the part. Not that this manner of speaking is always to be so interpreted; but where it is not, there is no trope; which must be judged of by the circumstances of the discourse. But that it frequently is so used, might be easily shown from many instances; though it will be sufficient to mention two or three. Cicero speaking of Cotta, calls him *no mean orator*, whom he had just called a *very great orator*. And he says of Varro, that, "he pursued his studies not without industry; and afterwards gives him the character "of a man of the greatest application." Which passages, compared together, plainly show the import of those negative expressions. And a friend of Cicero, writing to him, begins his letter thus: "Although I am sensible the news I send you will not be very pleasant." This news was concerning the death of another friend of Cicero's; and there by the words *not very pleasant*, must, to be sure, be meant *very unpleasant and melancholy*; but he chose that expression in the beginning of his letter, as the softest and least shocking, the better to prepare him for the following account of what that news was. And in this way interpreters explain that passage in St Matthew: *And thou Bethlehem in the land of Judah are not the least among the princes of Judah*; where, by *not the least*, they understand the *greatest*, or *very great*, upon account of the honour it received by the birth of our Saviour, as the words immediately following plainly intimate.

IV. When any displeasing or ungrateful thing is expressed by a more soft and agreeable word, it is called *euphemism*. And as the word made use of is either contrary to the proper word, or only different from it, it may be referred to different tropes. The Latins have a soft way of expressing their disregard to a person, by saying *valeat*; which we have borrowed from them, and say, *fare him well*. When the contrary being intended to what is expressed, it comes properly under an *irony*. And as the word *death* carries in it an idea that is disagreeable to human nature, instead of saying a person is dead, we often say *he is deceased*, or *departed*; which we have also taken from the Latins, who use the words *decessit* and *obit* in the same sense. So that in both languages it comes under a *synecdoche* of the whole; to depart out of life being one sort of departure. But when the evangelist speaking of Stephen, who was stoned to death, expresses it

Elocution.

61 *Litotes*, where, by denying the contrary, more is meant than is expressed.

62 *Ungrateful* things softened by agreeable words.

Elocution.

by saying that *he fell asleep*; this is a beautiful metaphor, taken from the similitude between the death of a good man and sleep.

63
Catachresis,
or harsh
tropes.

V. *Catachresis* signifies in general any harsh trope, though it is most commonly found in metaphors. It is principally used by poets, who make choice of it for novelty, or to enforce an expression, where the proper word does not seem strong enough. As when Milton, in describing the angel Raphael's descent from heaven, says, he

Sails between worlds and worlds;

where the novelty of the word enlivens the image more than if he had said *flies*. But it is sometimes found in the gravest authors, and even in the sacred writings. So we read of the *blood of the grape*. And Solomon says, *the horse-leech hath two daughters*. In all these instances the trope is a metaphor. But when St John says in the Revelations, *I turned to see the voice that spake to me*, it is here a metonymy of the adjunct; the word *voice* being put for the person who uttered it. In St Matthew we read of *Simon the leper*; not that he was then a leper, but had been so, and was cured; which is a *synecdoche* of the part. And when a criminal is said to have had his reward, that is, his punishment, it is an *irony*.

64
Hyperbole
the boldest
of all
tropes.

VI. *Hyperbole* is the boldest of all tropes; for it exceeds the strict bounds of truth, and represents things either greater or less, better or worse, than they really are. But the representation is made in such a manner as not to impose on the hearers. For an *hyperbole* is not used to define or describe any thing accurately, but only to magnify or depress it in a considerable degree, when we either cannot or do not choose to represent it exactly. The excess in this trope is called *auxesis*; as when we say of any thing that is very high, *it reaches to the skies*. The defect, or contrary extreme, is termed *meiosis*: So we say of a very lean person, *he is nothing but skin and bones*, or *a mere skeleton*. It is principally metaphorical, but sometimes taken from other tropes. When Saul and Jonathan are said to have been *swifter than eagles*, and *stronger than lions*, the expression is founded in similitude, and is therefore a metaphor. When, instead of saying Cato was a very virtuous man, the historian calls him *the image of virtue*; it is an hyperbolical metonymy of the adjunct for the subject. And when we read in the Mosaic history of cities *fenced up to heaven*, there is a *synecdoche*. But if a man of weak sight be said to be *eagle-eyed*, it is an *irony*. Those hyperboles which are expressed comparatively, are commonly most emphatical, because they show a peculiarity in the excess. To say a thing is *as light as a feather*, carries the idea very far; but to say it is *lighter*, not only carries it still farther, but also heightens it, by leaving the mind at an uncertainty where to fix the limits.

65
Metalepsis,
where two
or more
tropes are
meant un-
der one
word.

VII. Sometimes two or more tropes, and those of a different kind, are contained under one word; so that several gradations, or intervening senses, come between the word that is expressed, and the thing designed by it. And this is called a *metalepsis*. The contests between Sylla and Marius proved very fatal to the Roman state. Julius Cæsar was then a young man. But Sylla observing his aspiring genius, said of him, "In one Cæsar there are many Mariuses." Now

in this expression there is a *metalepsis*. For the word *Marius*, by a *synecdoche*, or *antonomasia*, is put for any ambitious and turbulent person; and this again, by a *metonymy* of the cause, for the ill effects of such a temper to the public. So that Sylla's meaning, divested of these tropes, was, that Cæsar would prove the most dangerous person to the Roman state that ever was bred in it: which afterwards proved true in the event. So when Virgil, describing that part of the African coast where Æneas arrived with his ships, says, *A dark wood hung over it*; the word *dark*, by a metonymy of the effect, is put for *shady*, and that again by the same trope for *thick*; for his meaning is, a *thick wood*. But the words of Dido, in the same poet, contain a larger gradation, when she says,

*Happy, ah truly happy, had I been,
If Trojan ships our coasts had never seen.*

In which expression, first by a metonymy of the adjunct, the ships are put for the Trojans in the ships; and these, by a *synecdoche* of the whole, for Æneas, who was one of them; and again his arriving on the coast, by a metonymy of the cause, for her seeing him; and lastly, her seeing him, by the same trope, for the passion she had for him. So that her meaning is, she had been happy, if she had never entertained a passion for Æneas. This trope is more frequently to be met with in poets than in orators, as they take greater liberty in using distant allusions than is suited to that perspicuity of expression which is required in oratory. But as Quintilian has well observed, all the intermediate links of the chain in this trope are of no further use than to lead the mind gradually from the first to the last, the better to perceive their connection. As in the example last mentioned, relating to Dido, if we drop all the intervening steps, and connect the words expressed with what is directly intended, they will be found to contain a very remote cause put for the effect, which comes under a metonymy. On the contrary, in the second example, where *dark* stands for *thick*, the effect is put for a remote cause. And the first, which is founded in a similitude of temper between Cæsar and Marius, belongs to a *metaphor*.

VIII. *Allegory*. As a *metalepsis* comprises several tropes in one word, so this is a continuation of several tropes in one or more sentences. Thus Cicero says, "Fortune provided you no field, in which your virtue could run and display itself:" where the words *field* and *run* are metaphors taken from corporeal things, and applied to the mind. And in another passage, speaking of himself, he says, "Nor was I so timorous, that after I had steered the ship of the state through the greatest storms and waves, and brought her safe into port, I should fear the cloud of your forehead, or your colleague's pestilent breath. I saw other winds, I perceived other storms, I did not withdraw from other impending tempests; but exposed myself singly to them for the common safety." Here the state is compared to a ship, and all the things said of it under that image are expressed in metaphors made use of to signify the dangers with which it had been threatened. And indeed allegories generally consist of metaphors; which being the most beautiful trope, a number of them well chosen and put together is one of the finest and brightest ornaments in language, and exceeds

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Allegory, a
continua-
tion of
tropes thro'
several sen-
tences.

Elocution. exceeds a single metaphor in lustre, as a constellation does a separate star. It is true, that allegories are sometimes found in other tropes; but this is very rare. In that known expression of Terence, the tropes are all metonymies: *Without Ceres and Bacchus, Venus grows cold*; that is, divested of the tropes, *Without meat and drink, love dies*. And Samson's riddle is made up of synecdoches: "Out of the eater came forth meat, and out of the strong came forth sweetness." But there is no small skill required in the right management of allegories. For care should be taken, that the same kind of trope be carried through the whole, so as to compose one uniform and consistent set of ideas: otherwise they dress up a chimera, a thing that has no existence, and of which the mind can form no perception. And, as Quintilian says very justly, "to begin with a tempest and end with a fire, would be very ridiculous and unnatural." It is likewise very necessary that the allusions be all plain and evident, especially where the name of the thing alluded to is not expressed. These are called *pure allegories*. As that of Cicero: "So it happens, that I, whose business it is to repel the darts, and heal the wounds, am obliged to appear before the adversaries have thrown any dart; and they are allowed a time to attack us, when it will not be in our power to avoid the assault; and if they throw a poisonous dart, which they seem prepared to do, we shall have no opportunity to apply a remedy." The tropes here are all taken from military affairs, without any intimation what they are applied to. But that is plain from the context of the discourse. For he is speaking of the disadvantages he laboured under in defending his client against those of the opposite side, and so applies to the bar those terms which were proper to the field. But where the reference is not evident, it becomes a riddle: which is nothing else but an obscure allegory. To avoid this, therefore, the best writers generally use what they call *mixed allegories*; that is, such wherein the proper name of the thing is expressed, which the whole similitude respects. Of this kind is that in the speech of king Philip of Macedon, given us by Justin, where he says, "I perceive that cloud of a dreadful and bloody war arising in Italy, and a thunder-storm from the west, which will fill all places with a large shower of blood, wherever the tempest of victory shall carry it." The proper words *war, blood, and victory*, being joined to the tropes *cloud, shower, and tempest*, in this sentence, render the several parts of the similitude plain and evident. Quintilian thinks those allegories most beautiful, where the whole similitude is expressed, and those words, which in their proper sense relate to one of the two things between which the comparison is made, are allegorically applied to the other: As when Cornelius Nepos says of Atticus, "If that pilot gains the greatest reputation who preserves his ship in a boisterous and rocky sea; ought not he to be thought a man of singular prudence, who arrived in safety through so many and so great civil tempests?" These are the allegories with which orators are chiefly concerned.

§ 2. Of Figures.

THIS term seems to have been borrowed from the stage, where the different habits and gestures of the

actors, suitable to the several characters they sustained, were by the Greeks called *σχηματα*, and by the Latins *figuree*. And it is not unusual with us to say of a person, both with respect to his dress and action, that he *figure* makes a very bad, or a very graceful, figure. And as language is the dress, as it were, of our thoughts, in which they appear and are represented to others; so any particular manner of speaking, may, in a large sense of the word, be called its *figure*, in which latitude writers sometimes use it. But rhetoricians have restrained the sense of the word to such forms of speech as differ from the more common and ordinary ways of expression; as the theatrical habits of actors, and their deportment on the stage, are different from their usual garb and behaviour at other times. A *figure* therefore, in the sense it is used by rhetoricians, is, *A mode of speaking different from, and more beautiful and emphatical than, the ordinary and usual way of expressing the same sense*; or, in other words, *That language which is suggested either by the imagination or the passions*. Now as the habits and gestures of our bodies are in a manner infinitely variable, so it is plain that the different forms of speech are almost innumerable. But every alteration from the common manner ought not to be esteemed a figure, nor deserves that character. It must contain some beauty, or express some passion, to merit a place among rhetorical figures, and be marked out for imitation.

The subject of *figures* seems to have been one of the last things which was brought into the art of oratory, in order to complete it. Aristotle, who treats so accurately upon other parts, says very little of this. But the Greek writers who came after him have abundantly supplied that deficiency. It is to them we owe the chief observations that have been made on this subject. They took notice of the several modes and turns of expression, observed their force and beauty, and gave them particular names by which they might be known and distinguished from each other. And indeed they have treated the matter with such minuteness and subtilty, that Quintilian seems, not without reason, to think they have multiplied figures to an excess. But though it was so late before they were taken notice of, and introduced into the art of speaking, yet the use of them in discourse was doubtless very ancient. The author of Homer's life, which some have ascribed to Plutarch, has shown, by examples taken out of him, that there is scarce a figure mentioned by rhetoricians, but is to be met with in that most ancient poet. And, if we consider the nature of speech, we shall easily perceive that mankind must have been under a necessity very early to introduce the use of *tropes* for supplying the want of proper words to express their simple ideas: so the like necessity must have put them upon the use of figures to represent their different passions. Though both of them were afterwards increased, and improved in such a manner as to become the chief ornaments of language. The passions of men have been always the same; they are implanted in us by nature, and we are all taught to discover them by the same ways. When the mind is disturbed, we show it by our countenance, by our actions, and by our words. Fear, joy, anger, alter the countenance, and occasion different emotions and gestures of the whole body. And we know with what

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The term
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what passion a man is affected, by hearing his words, though we do not see him. He does not express himself as he usually does at other times when cool and sedate. Objects appear to him in a different view, and therefore he cannot but speak of them in a different way. He interrogates, he exclaims, he admires, he appeals, he invokes, he threatens, he recalls his words, repeats them, and by many other different turns of expression varies his speech no less than his countenance, from his common and ordinary manner. Now as nature seems to teach us by these figurative expressions how to represent the different commotions of our minds, hence some have thought fit to call figures *the language of the passions*. And as these are given us, among other wise ends, to excite us the better to provide for our preservation and safety, this is done sometimes by force of arms, and at other times by discourse. And therefore Cicero very handsomely compares the conduct of an orator to the exercises of the palæstra: in which, as each combatant endeavours not only to defend himself, and attack his adversary, but likewise to do both with decency; so the principal weapons of an orator, as he represents them, are figures, which being no less the ornaments of language than images of our passions, answer all these purposes. Besides, figures chiefly distinguish the different kinds of style, furnish it with an agreeable variety, and often serve to represent things in a clear and forcible manner.

From this short account of the nature of figures, the advantage of them to an orator is very evident. They are a sort of natural eloquence, which every one falls into without attending to it, suitably to that temper of mind with which he is affected himself, and is desirous to affect others. In a cool and sedate discourse, such figures as convey our sentiments with the greatest strength and evidence are most proper. And there are others, which are suited to brighten and enliven more gay and sprightly subjects. Others again are more peculiarly adapted to express the disorders and perturbations of the mind. To repeat the same thing again would many times be deemed a tautology and impertinent; but to do this when the mind is ruffled, is not only allowable, but the repetition renders it more strong and affecting. So likewise to interrogate, exclaim, or admire, under the influence of a passion, impresses the hearers, and disposes them to attention; whereas at another time perhaps such ways of speaking would scarce be consistent with prudence. There is a natural sympathy in mens minds, which disposes them to receive impressions from those with whom they converse. Thus one gay and pleasant companion gives a cheerfulness and vivacity to a whole company; whereas, on the contrary, one who is dull and phlegmatic damps the spirits of all about him, and affects them with the same gloomy temper. Figures are peculiarly serviceable to an orator for answering these different intentions. And as he finds them in life, from thence he must copy them; as a painter does the features of the countenance, and the several parts of the body; figures being to the one what lines and colours are to the other. The design of Catiline to destroy the Roman state and burn the city, is a story well known. There was an army drawn together at a proper distance to favour the undertaking; and others were left in Rome, who had their parts

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assigned them for burning the city, and destroying those who should escape the flames. And in a word, every thing was ready for putting in execution this horrid and barbarous scheme. So that nothing retarded it but the taking off Cicero, who was then consul, which was thought necessary to be done first. Cicero, upon information of the design against his life, finds means to prevent it, and the same day calls together the senate. And Catiline, who was a man of consummate boldness, had the confidence to appear in that assembly. Upon their meeting, Cicero opens to them the whole affair of the conspiracy, and the design against himself, in a most warm and pathetic harangue. In which he had two things in view; to raise the indignation of the senate against the conspirators, and particularly against Catiline; and, either by terrifying or exasperating him, to oblige him to leave the city. Now he does not begin this speech in his usual manner at other times, by addressing to his audience, bespeaking their favour and attention, or letting them gradually into the design of what he was about to say; but as Catiline was present, he immediately falls upon him with vehemence, in the following manner: "How far, Catiline, will you abuse our patience? How long will your fury insult us? What bounds will you set to your unbridled rage? Does neither the night-guard of the palace, nor the city-watch, nor the peoples fear, nor the agreement of all good men, nor the meeting of the senate in this fortified place, nor the countenances and looks of this assembly, at all move you? Do not you perceive your designs are discovered, and that all who are present know of your conspiracy? Who of us, do you think, is ignorant of what you did the last night, and the night before, where you was, who were with you, and what you resolved on? O times, O manners! The senate knows this, the consul sees it; and yet this man lives!—lives? nay, comes into the senate, joins in the public counsels, observes and marks out each of us for destruction!" And in the same impetuous strain he proceeds through his whole speech, interspersing a great variety of the like strong and moving figures. And the discourse had its desired effect: for when Catiline stood up afterwards to make his defence, the whole senate was so inflamed, and their resentments against him rose so high, from what Cicero had said, that they had not patience to hear him speak; upon which he left both them and the city. Had Cicero, instead of venting his just indignation against the author of so barbarous and inhuman a design, in the manner he did, by figures suited to strike the passions of his hearers; had he, instead of this, attempted to reason with him, and told the story in a cold and lifeless manner, he would have exposed himself to the contempt of Catiline; and by leaving the senate little or nothing moved at what he said, prevented perhaps their coming to those speedy and vigorous resolutions which were necessary at so critical a juncture. Let us suppose him to have expostulated with Catiline in much the same words as before, but thrown into a different form, and divested of those pathetic figures. As thus: "Catiline, you have really abused our patience to a great degree. You have insulted us with your furious proceedings a long while. You seem to have fixed no bounds to

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your unbridled rage. Neither the night-guard of the palace, nor the city-watch, nor the peoples fear, nor the agreement among good men, nor the calling together of the senate in this fortified place, nor the countenances and looks of this assembly, appear to move you in the least. I assure you we are all of us apprised of what you did the last night, and the night before, where you was, and who were with you, and what resolutions you came to. These are sad times, the age is very degenerate; that the senate should know all this, the consul see it; and yet that this man should live, come into the senate, hear all our debates, and mark us out to destroy us." You see the sense is entirely the same, and the words too in a great measure; so that there is little more than an alteration in the form of them. And yet who does not perceive how flat and languid such a way of talking must have appeared at that time? and how much it loses of that spirit and energy, which shows itself in Cicero's manner of expression? Had he delivered himself thus, it might indeed have made the senate look upon Catiline as an abandoned wretch, lost to all virtue and goodness, and perhaps have moved some to pity him on that account; as we are easily induced to compassionate persons in such circumstances, especially when descended from noble and virtuous ancestors, which was his case. But sure it would have been ill suited to fire their minds with that generous regard for their country, and the necessary precautions for its security, which the circumstances of the state then required. Nor would Catiline have been at all deterred by it, but rather encouraged in the prosecution of his designs, from the little effect a speech so managed must probably have had upon the minds of the senators. But Cicero knew very well that the passions of mankind are the springs of action: that it is many times not sufficient for an orator to convince their minds, by setting the truth in a clear light; but he must also raise their hopes, alarm their fears, inflame their anger, or excite some other suitable passion, before they will be brought to act with that zeal and fervour which the case may require. And as he was admirably well skilled in this art of touching the passions, he seldom fails to fix upon the proper methods of doing it, and makes choice of such figures and modes of speaking as in the strongest manner represent the emotions of his own mind. For every passion is not to be expressed by the same figures, any more than it is drawn by the same lines, or painted with the same colours. When Dido finds that Æneas is about to leave her, she uses all her arts to detain him. And as persons in great distress are seldom at a loss to express their condition in the most affecting way; she discovers her fear, anger, revenge, with the whole crowd of disorders which then possessed her mind, in a variety of moving figures, suited to raise the counter passions in his breast, as is finely represented by Virgil in that artful speech he has made for her, which we forbear to recite for no other reason but the length of it. But what particular figures are most accommodated to answer the several ends proposed by them, will best appear when we come to treat of them separately.

We shall therefore now proceed to lay down a few
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directions for the proper use of figures. And first they should always be accommodated to the sentiments, and rise in proportion to the images designed to be conveyed by them. So far as they are founded in reason, they are suited to impress the mind; but where the language outstrips the thought, though it may please the ear, and some weak persons may be carried away with a pomp of words, yet an intelligent hearer will soon see through the thin and airy dress. It is the sense which gives weight to the figure, as that by striking the imagination awakens the mind, and excites it to act in conformity to reason. Again, in the use of pathetic figures, it is generally better to be nervous than copious, that the images, by their closer union, may impress the mind with greater force and energy; though in such figures as are designed for ornament or illustration, a more diffusive way of painting is sometimes agreeable. But farther, the too frequent use of figures ought to be avoided. For what was observed in relation to tropes, is also true with respect to these; that a great number of them is apt to darken and obscure the style. And besides, Cicero's reflection in this case is very just, That "it is hard to say, what should be the reason, that those things, which most affect us with a sensible pleasure, and at first sight soonest move us, do likewise soonest cloy and satiate us." But that it is so, we find by common experience. Lastly, figures should be so interwoven in a discourse, as not to render the style rough and uneven, sometimes high and at other times low; now dry and jejune, then pompous and florid. In a word, they should rather seem to arise from nature than art; to offer themselves, than to be the effect of study; and to appear not like patches upon a face, but the agreeable beauty of a sound and healthful complexion. But of this we shall have occasion to speak more at large hereafter, in treating upon the different kinds or characters of style.

As to the division of figures, which is what remains to be considered, they are usually divided into two sorts, figures of words, and figures of sentences. The difference between them consists in this; that in the former, if you alter the words, or sometimes only the situation of them, you destroy the figure; but in the latter the figure remains, whatever words are made use of, or in what manner soever the order of them is changed. Thus when the name of a person or thing is repeated, to intimate some known property or quality belonging thereto, it is a verbal figure called *plocé*. Cicero was a true patriot and hearty lover of his country. And therefore we shall use this figure in saying, that *at the time of Catiline's conspiracy Cicero appeared like Cicero*. The sense would remain the same, but the figure would be lost, if we should alter the words, and say, *at that time Cicero appeared like himself*. So when two or more sentences, or members of a sentence, end with the same word, it is called *epistrophe*; as when we say, *To lose all relish of life, is in effect to lose life*. But if only the order of the words be changed in the latter clause thus, *To lose all relish of life, is to lose life in effect*; the figure vanishes. And this is the nature of the verbal figures. But it is not so in figures of sentences; they continue the same, whatever alterations are made in

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the words. An orator sometimes thinks it proper to change the form of his discourse, and address himself to his audience, or an absent person, or else perhaps to introduce some other person as speaking to them whose words may be supposed to carry greater weight and authority with them than his own. The former of these is called *apostrophe*, and the latter *prosopopæia* or *imagery*; which require no certain words or order of expression.

ART. I. VERBAL FIGURES.

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Verbal
figures distinguished
into three
sorts; with
their various subdivi-
sions.

THESE may be distinguished into three sorts, as they consist in a *deficiency* of words, a *redundancy*, or a *repetition*.

I. Of the first sort are *ellipsis* and *asyndeton*.

Ellipsis, is when one or more words are wanting in a sentence to complete the construction, and fully express the sense. This figure is often used in proverbial speeches: as when we say, *Many men, many minds*; that is, *have many minds*; and, *The more danger, the more honour*; that is, *gains more honour*. But where more is intended by such expressions than mere brevity, and especially when they are the effect of some passion, the figure receives another name, and is called *apostrophe*, which is placed among the figures of sentences, where we shall consider it.

Asyndeton, is when the particles that connect the members of a sentence one with another are left out, to represent either the celerity of an action, or the haste and eagerness of the speaker. Thus Cæsar expresses his speedy conquest of Pharnaces: *I came, I saw, I conquered*. If he had inserted the copulatives, and said, *I came, and I saw, and I conquered*, it would have retarded the expression, and not given so full and just an idea of the swiftness of the action. In the last article we took notice of the vehement and impetuous manner in which Cicero attacked Catiline in his first oration, where his design was to fire the minds of the senate against him, and oblige him to leave the city, both which points he gained by that speech. The next day, therefore, when Catiline was gone, he calls together the body of the citizens, and makes a speech to them, which in a sort of rapture or transport of mind he thus begins, by acquainting them with the departure of Catiline, *He is gone, departed, escaped, broke out*; intimating at the same time both the excessive rage in which Catiline left Rome, and the great pleasure with which he was himself affected on that account. This concise way of speaking adds likewise a considerable emphasis to an expression, and by bringing the several parts of a thing nearer together affects the mind with greater force. Thus Cicero sets Cato's character in a very strong and beautiful light by the use of this figure. "Nature itself (says he) has made you a great and excellent man for integrity, gravity, temperance, magnanimity, justice, in a word, for all virtues."

II. The second sort of verbal figures is contrary to these, and consists in a redundancy or multiplicity of words; which are likewise two, *pleonasmus* and *polyndeton*.

When we use more words than are necessary to express a thing, it is called *pleonasmus*. This is done sometimes for greater emphasis, as when we say, *Where in the world is he?* At other times it is designed to as-

certain the truth of what is said: So the servant in Terence, when the truth of what he had related was called in question, replies, *It is certainly so; I saw it with these very eyes*.

When the several parts of a sentence are united by proper particles, it is called *polyndeton*. This adds a weight and gravity to an expression, and makes what is said to appear with an air of solemnity; and by retarding the course of the sentence, gives the mind an opportunity to consider and reflect upon every part distinctly. We often meet with this figure in Demosthenes, which very well suits with the gravity of his style. So he encourages the Athenians to prosecute the war against King Philip of Macedon, from this consideration, that now "they had ships, and men, and money, and stores, and all other things which might contribute to the strength of the city, in greater number and plenty than in former times." Every article here has its weight, and carries in it a proper motive to animate them to the war. But if you remove the copulatives, the sentence will lose much of its force.

III. The third kind of verbal figures consists in a *repetition*. And either the same word in sound or sense, is repeated; or one of a like sound, or signification, or both.

Of the former sort there are ten, called *antanaclasis*, *plote*, *epizeuxis*, *climax*, *anaphora*, *epistrophe*, *symplote*, *epanalepsis*, *anadiplosis*, and *epanodos*. The two first of these agree in sound, but differ in sense; the eight following agree in both.

When the same word in sound but not in sense is repeated, it is called *antanaclasis*. This figure sometimes carries a poignancy in it; and when it appears natural and easy, discovers a ready turn of thought. As when a son, to clear himself of suspicion, assured his father *he did not wait for his death*; his father replied, *But I desire you would wait for it*. Here the word *wait* is taken in two different senses. It is likewise used on serious occasions, as in grave and moral precepts, which are apt to affect the mind with greater pleasure when delivered in an agreeable dress. As this; *Care for those things in your youth, which in old age may free you from care*: Where the word *care* in the former place signifies to *provide*, and in the latter *anxiety of mind*. And even our Saviour himself once uses this figure, when he says to one of his disciples, who desired to be dismissed from attending him that he might go and bury his father; *Follow me, and let the dead bury their dead*: Where *dead* in one place denotes a *natural death*, and in the other a *moral or spiritual death*.

Sometimes the name of some person or thing is repeated again, to denote some particular character or property designed to be expressed by it; and then it is called *plote*. Thus Cicero says, *Young Cato wants experience, but yet he is Cato*; meaning he had the steady temper of the family. And so in the proverbial expression, *An ape is an ape, dress him ever so fine*.

When a word is repeated again with vehemence in the same sense, it is called *epizeuxis*. This figure shows the earnestness of the speaker, and his great concern of mind about what he says; and therefore has a natural tendency to excite the attention of the audience.

Elocution. It is suited to express anger, surprise, sorrow, and several other passions. As when Cicero would express his indignation against Antony for having been the chief instrument in bringing on the civil war, he says to him: *You, you, Antony, pushed Cæsar upon the civil war.* And thus he tells Catiline in his first invective against him: *You live; and live, not to lay aside, but to pursue, your wicked design.* And when our Saviour would express his great concern and sorrow for the wickedness of the Jews, he does it in this pathetic manner: *O Jerusalem, Jerusalem, who killest the prophets!*

Climax is a beautiful kind of repetition, when the word, which ends the first member of a period, begins the second, and so through each member, till the whole is finished. There is a great deal of strength as well as beauty in this figure, where the several steps rise naturally, and are closely connected with each other. As in this example: *There is no enjoyment of property without government, no government without a magistrate, no magistrate without obedience, and no obedience where every one acts as he pleases.* But, as Quintilian observes, this figure lies so open, that it is apt to look too much like art; for which reason he advises not to use it often. To prevent this, therefore, orators sometimes disguise it, by not repeating the same word which stood in the former member, but some other equivalent to it. As in the following instance of Cicero for Milo: "Nor did he commit himself only to the people, but also to the senate; nor to the senate only, but likewise to the public forces; nor to these only, but also to his power with whom the senate had entrusted the whole commonwealth."

When several sentences, or members of a sentence, begin with the same word, it is called *anaphora*. This is a lively and elegant figure, and serves very much to engage the attention. For by the frequent return of the same word the mind of the hearer is held in an agreeable suspense, till the whole is finished. "You do nothing (says Cicero to Catiline), you attempt nothing, you think nothing, but what I not only hear, but also see, and plainly perceive." It is frequently used by way of question; which renders it not only beautiful, but likewise strong and nervous. As at the beginning of the same speech: "Does neither the night-guard of the palace, nor the city-watch, nor the peoples fear, nor the agreement of all good men, nor the meeting of the senate in this fortified place, nor the countenances and looks of this assembly, at all move you?" And in another of his orations: "What is so popular as peace, which seems to afford a pleasure, not only to beings endowed with sense, but even to inanimate nature? What is so popular as liberty, which even beasts as well as men seem to covet and prefer above all things? What is so popular as ease and leisure, for the enjoyment of which you and your ancestors have undergone the greatest labours?"

Epistrophe is contrary to the former, and makes the repetition at the end of each member or sentence. As thus: *Since concord was lost; friendship was lost, fidelity was lost, liberty was lost; all was lost.* And Cicero, in the charge which he brings against Mark Antony before the senate, makes use of this figure, when

he says, "Do you lament the destruction of three Roman armies? the author of that destruction was Antony. Do you bewail the loss of most eminent citizens? They have been taken from you by Antony. Is the authority of this order weakened? It is weakened by Antony."

Symploce takes in both these last figures. As in that of Cicero: "You would pardon and acquit him, whom the senate hath condemned, whom the people of Rome have condemned, whom all mankind have condemned." Here the several members both begin and end with the same word. We have a beautiful instance of it in St Paul, when he says, "Are they Hebrews? so am I. Are they Israelites? so am I. Are they the seed of Abraham? so am I."

When a sentence concludes with the word with which it began, it is called *epanalepsis*. As in that expression of Plautus, "Virtue contains all things, he wants no good thing who has virtue." The figure is the same, but the principle not so honest, in the advice which we find given by the miser in Horace, when he says, "Get money, if you can, honestly; but however, get money." This figure adds a force to an expression, when the principal thing designed to be conveyed is thus repeated, by leaving it last upon the mind. And it heightens the beauty of it, when the sentence has an agreeable turn arising from two opposite parts. As in Cicero's compliment to Cæsar: "We have seen your victory terminated by the war; your drawn sword in the city we have not seen." Hermogenes calls this a *circle*, because the sentence returns again to the same word, as that geometrical figure is formed by the orbicular motion of a line to the same point.

When the following sentence begins with the same word with which the former concluded, it is termed *anadiplosis*. As in the following instance: *Let us think no price too great for truth; truth cannot be bought too dear.* So in that passage of St John: *He came to his own, and his own received him not.* This figure generally suits best with grave and solemn discourses.

Epanodos is the inversion of a sentence, or repeating it backwards, so that it takes in the two last figures; for it both begins and ends with the same word, and the same word is likewise repeated in the middle. This turn of expression has a beauty in it, and shows a readiness of thought. We have the following example of it in Minutius Felix, where he is exposing the folly of the Egyptian superstition. "Isis (says he), with Cynocephalus and her priests, laments, bemoans, and seeks her lost son; her attendants beat their breasts, and imitate the grief of the unhappy mother; in a little time the son is found, upon which they all rejoice. Nor do they cease every year to lose what they find, or to find what they lose. And is it not ridiculous to lament what you worship, or to worship what you lament?" It serves likewise to illustrate and enforce the sense, by setting it in two opposite views. As in that expression of the prophet: "Wo unto them who call good evil, and evil good; who put darkness for light, and light for darkness!"

Those figures which consist in a repetition of words of a like sound or signification, or both, are four;

Elocution. *paronomasia*, *homoioputon*, *synonymia*, and *derivatio*; the two first of which respect words that are similar in sound only, the third in sense, and the last in both.

76 When two words very near in sound, but different in sense, respect each other in the same sentence, it is called *paronomasia*. As when we say, *After a feast comes a fast*; and, *A friend in need is a friend indeed*. We usually call it a *pun*, which when new, and appositely used, passes for wit, and serves to enliven conversation. Nor is it wholly to be excluded from grave and serious discourses: for a witty jest has many times had a better effect than a solid argument, and prevailed with those who could not be moved by close reasoning. And therefore Cicero and the best speakers have sometimes recourse to it upon weighty and solemn occasions, as will be shown hereafter in its proper place.

77 When the several parts of a sentence end with the same case, or tense of a like sound, this also is considered as a figure, and named *homoioputon*. As thus: *No marvel though wisdom complain that she is either wilfully despised, or carelessly neglected; either openly scorned, or secretly abhorred*. This figure is esteemed most beautiful when the parts are all of the same length, or pretty near it; as it adds to the harmony of the period, and renders the cadency of the several members more musical from the just proportion between them. The Greek rhetoricians were much addicted to this figure, and Isocrates is particularly celebrated for it. But some of the best orators seem to have industriously avoided it, as carrying in it too much the appearance of art. And it is remarkable, that this figure appears nowhere so much in all the works of Demosthenes, as in an oration which he did not speak himself, but wrote for his friend Diodorus, a man of that taste, who was to pronounce it as his own.

78 The next figure above-mentioned is *synonymia*. Now strictly speaking, synonymous words are those which have exactly the same sense. But there being few such, the use of the term is so far extended as to comprehend words of a near affinity in their signification, which in discourse are frequently put for one another. So, *to desire*, and *intreat*, are sometimes used as equivalent terms; whereas *to desire* is no more than to wish for a thing, and *to intreat* is to express that inclination in words. In like manner, *esteem* and *honour* are often taken for synonymous words, though they have not precisely the same sense, but one is the usual consequence of the other; for esteem is the good opinion we entertain of a person in our mind, and honour the outward expression of that opinion. When two or more such words come together, they constitute this figure. As when Cicero, speaking of Piso, says, "His whole countenance, which is the tacit language of the mind, has drawn men into a mistake, and deceived, cheated, imposed on those who did not know him." This figure sometimes adds force to an expression, by enlivening the idea; and it often promotes the harmony and just cadency of a sentence, which otherwise would drop too soon, and disappoint the ear.

79 When such words as spring from the same root, as *justice*, *just*, *injustice*, *unjust*, and the like, come together in the same sentence, they make the figure called *derivatio*. Cicero, observing the vanity of the philosophers who affected praise at the same time that they

decied it, uses this figure, when he says of them, "The philosophers set their names to those very books which they write for the contempt of glory; and are desirous to be honoured and applauded, even for what they say in contempt of honour and applause." This figure receives an additional beauty when repeated, especially in two opposite members; as, *He wished rather to die a present death, than to live a miserable life*.

Art. II. FIGURES of SENTENCES.

Of these, some are principally adapted for reasoning, and others to move the passions.

I. *Those suited for proof*. Which are six: *Prolepsis*, *hypobole*, *anacoinosis*, *epitrope*, *parabole*, and *antithesis*.

Prolepsis, or *anticipation*, is so called, when the orator first starts an objection, which he foresees may be made either against his conduct or cause, and then answers it. Its use is to forestall an adversary, and prevent his exceptions, which cannot afterwards be introduced with so good a grace. Though it has likewise a farther advantage, as it serves to conciliate the audience, while the speaker appears desirous to represent matters fairly, and not to conceal any objection which may be made against him. The occasions of this figure are various; and the manner of introducing it very different. Sometimes the orator thinks it necessary to begin with it, in order to justify his conduct, and remove any exceptions which may be made against his design. Cicero, for several years together, after he first began to plead, had always been for the defendant in criminal cases. And therefore, when he was prevailed with to undertake the accusation of Verres, he begins his oration with this apology for himself: "If any one present should wonder, that when for several years past I have so conducted myself as to defend many and accuse none, I now on a sudden alter my custom, and undertake an accusation: when he shall have heard the occasion and reason of my design, he will both approve of it, and think no person so proper to manage this affair as myself." And then he proceeds to give an account of the reasons which moved him to engage in it. At other times the objection is admitted as an exception to what has been said, but not so as to affect it in general. Thus, when Cicero has represented the advantages of literature and the polite arts, he starts this objection to what himself had said, "But some one will ask, whether those great men, the memory of whose glorious actions is delivered down to posterity, were acquainted with that sort of learning I so applaud?" To which he replies, "Indeed this can scarce be said of them all. However, the answer is easy. I have known several persons of excellent abilities, who, without learning, by the force of an extraordinary genius have been men of great virtue and solidity. Nay I will add, that nature without learning, has oftener produced these qualifications, than learning without a genius. But yet it must still be owned, that where both these meet, they form something very excellent and singular." Again, at other times, the orator artfully represents the objection as something considerable and important, to give the greater weight to his answer when he has confuted it. Cicero, in his celebrated oration for the Manilian law, could not omit

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Elocution. to take notice, that Lucullus had already gained several very considerable advantages over Mithridates. And therefore, having before described the war as very great and dangerous, apprehending these two accounts might appear somewhat inconsistent, and be liable to an objection, he puts it thus artfully himself: "But now, after what I have said of Lucullus, it may probably be asked, How then can the war be so great? He pleased to hear, for there seems to be very just reason for this question." And then he proceeds to show, from the power of king Mithridates at that time, his great abilities, long experience in military affairs, and fresh alliances, that the war was yet very great and dangerous. But sometimes, when the orator is sensible that what he has advanced lies open to an objection, he omits to make it in express terms; and yet proceeds to vindicate what he had said, as if it had been made. Thus, when Cicero had charged Verres with having plundered the inhabitants of Sicily of all their plate, jewels, and other valuable moveables, which he thought worth while to carry away; as the audience might imagine this to be scarce credible, he takes it for granted they thought so, and therefore immediately adds, "As strange as this is, I affirm it positively, without any intention to aggravate the crime." And so he goes on to the proof of his assertion. But this figure is likewise made use of to guard against some objection, which the speaker apprehends may be made against what he designs to say. And thus Cicero uses it in his oration for Sextius. "My province (says he), as I speak last, seems to call for affection to my friend, rather than his defence; complaint, rather than eloquence; expressions of grief, rather than art. And therefore, if I shall express myself with more warmth, or greater freedom, than those who have spoke before me, I hope you will grant me all that liberty of speech which you judge reasonable to be allowed to an affectionate sorrow and just resentment." This figure requires great prudence and discretion in the management of it. The speaker must consider well the temper, bias, and other circumstances of his hearers, in order to form a right judgment what parts of his discourse may be most liable to exception. For to object such things, which the hearers would never have thought of themselves, is to give himself a needless trouble; and to start such difficulties, which he cannot afterwards fairly remove, will expose both himself and his cause. But as nothing gives an audience greater pleasure and satisfaction, than to have their scruples fully answered as they rise in their thoughts; so on the contrary, be a discourse otherwise ever so entertaining and agreeable, if there be any doubt left upon the minds of the hearers, it gives them a pain that continues with them till it be removed.

81 The figure *hypobole* or *subjection*, is not much unlike the former; and is, when several things are mentioned that seem to make for the contrary side, and each of them refuted in order. It consists of three parts, when complete; a proposition, an enumeration of particulars with their answers, and a conclusion.—Thus Cicero, upon his return from banishment, vindicates his conduct in withdrawing so quietly, and not opposing the faction that ejected him. "My departure (says he) is objected to me, which charge I cannot answer without commending myself. For what

Elocution. must I say? That I fled from a consciousness of guilt? But what is charged upon me as a crime, was so far from being a fault, that it is the most glorious action since the memory of man, (he means his punishing the associates of Catiline.) That I feared being called to an account by the people? That was never talked of; and if it had been done, I should have come off with double honour. That I wanted the support of good and honest men? That is false. That I was afraid of death? That is a calumny. I must therefore say, what I would not, unless compelled to it, that I withdrew to preserve the city." When the objections are put by way of question, as in the example here given, they add a briskness and poignancy to the figure. All the parts of it are not constantly expressed. For thus Cicero in his defence of Plancius introduces his adversary objecting, and himself answering, "The people judged ill, but they did judge; they should not have done it, but they had a power; I cannot submit to it, but many very great and wise men have."—Both the proposition and conclusion are here omitted.

82 The next figure in order is *anacoiosis*, or *communication*; by which the speaker deliberates either with the judges, the hearers, or the adversary himself. Thus Cicero addresses the judges in his accusation of Verres: "Now I desire your opinion what you think I ought to do. And I know your advice will be, though you do not declare it, what appears to me necessary to be done." In another place we find him reasoning in this manner with the adverse party: "What could you have done in such a case, and at such a time; when to have sat still, or withdrawn, would have been cowardice? When the wickedness and fury of Saturninus the tribune had called you into the capitol; and the consuls, to defend the safety and liberty of your country; whose authority, whose voice, which party would you have followed, and whose command would you have chosen to obey?" This figure carries in it an air of modesty and condescension, when the speaker seems unwilling to determine in his own cause, but refers it to the opinion of others. It likewise shows a persuasion of the equity of his cause, that he can leave it to their arbitration; and serves very much to conciliate their minds, while he joins them, as it were, with himself, and makes them of his party. And when the appeal is made to the adverse party, it is of considerable advantage, either to extort a confession, or at least to silence him. And therefore the sacred writers sometimes very beautifully introduce God himself thus expostulating with mankind; as the prophet Malachi, *A son honoureth his father, and a servant his master. If then I be a father, where is mine honour? and if I be a master, where is my fear?*

83 Another figure that comes under this head, is *epitrope* or *concession*; which grants one thing, to obtain another more advantageous. It is either real or feigned; and either the whole of a thing, or a part only, is granted. We shall consider each of these separately, and illustrate them with proper examples. Nothing more confounds an adversary, than to grant him his whole argument; and at the same time either to show that it is nothing to the purpose, or to offer something else which may invalidate it. *I allow*, says the claimant by will against the heir at law, *that nobody was more nearly related to the deceased than you;* that

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that he was under some obligations to you; that you were in the army together: but what is all this to the will? And thus Cicero in his defence of Ligarius, who was accused by Tubero for having joined with Pompey in the civil war between him and Cæsar: "You have, Tubero, what an accuser would most desire, the accused person confessing the charge; but so as to affirm, that he was of the same party with you and your excellent father. Therefore own first that it was a crime in yourself, before you charge it as such upon Ligarius." Sometimes the orator gives up some particular point that would well admit of a dispute, to gain something more considerable, which he thinks cannot fairly be denied him. In the affair of Roscius, where the proof depended upon circumstances, Cicero, who defended him, inquires what reason could be alleged for his committing so black a crime, as to kill his father. And after he has shown there was no probable reason to be assigned for it, he adds, "Well, since you can offer no reason, although this might be sufficient for me, yet I will recede from my right; and upon the assurance I have of his innocence, I will grant you in this cause what I would not in another. I do not therefore insist upon your telling me why he killed his father, but ask how he did it?" This appearance of candour and ingenuity in such concessions removes the suspicion of art, and gives greater credit to what is denied. We have an example of a feigned or ironical concession, in Cicero's defence of Flaccus; where, interceding for him on the account of his former good services in the time of Catiline's conspiracy, he says in a way of irony, If such things are to be overlooked, "let us appease the ghosts of Lentulus and Cethegus; let us recal those who are in exile; and let us be punished for our too great affection and love for our country." By this artful insinuation, the orator, after he has used all his arguments to persuade his hearers, does as it were set them at liberty, and leave them to their own election; it being the nature of man to adhere more steadfastly to what is not violently imposed, but referred to his own free and deliberative choice. And to these feigned concessions may be referred such ways of reasoning, by which the orator both justifies a charge brought against him upon the supposition of its being true, and also proves that the charge itself is false. Thus Cicero, in his defence of Milo, represents the taking off Clodius, with which Milo was accused, as a glorious action; after he has shown that Milo's servants did it without the knowledge of their master.

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Parable or similitude, illustrates a thing by comparing it with some other, to which it bears a resemblance. Similitudes are indeed generally but weak arguments, though often beautiful and fine ornaments. And where the design of them is not so much to prove what is doubtful, as to set things in a clear and agreeable light, they come properly under the notion of figures. They are of two sorts; simple and compound. Those are called *simple*, in which one thing only is likened or compared to another, in this manner: *As swallows appear in summer, but in winter retreat; so false friends show themselves in prosperity, but all fly away when adversity approaches.* Compound similitudes are such, wherein one thing is likened or compared to several others; as thus: *What light is to the world, phy-*

sic to the sick, water to the thirsty, and rest to the weary; that is knowledge to the mind. The more exact the agreement is between the things thus compared, they give the greater beauty and grace to the figure.

Antithesis or opposition, by which things contrary or different are compared, to render them more evident. Thus Cicero says, "The Roman people hate private luxury, but love public grandeur." This is a very florid figure; and suited no less for amplification than proof. As in the following instance of Cicero, where, speaking of Pompey, he says, "He waged more wars than others had read; conquered more provinces than others had governed; and had been trained up from his youth to the art of war, not by the precepts of others, but by his own commands; not by miscarriages in the field, but by victories; not by campaigns, but triumphs." It is esteemed a beauty in this figure when any of the members are inverted, which some call *antimetathesis*. As where Cicero, opposing the conduct of Verres when governor of Sicily, to that of Marcellus who took Syracuse the capital city of that island, says, "Compare this peace with that war, the arrival of this governor with the victory of that general, his profligate troops with the invincible army of the other, the luxury of the former with the temperance of the latter; you will say, that Syracuse was founded by him who took it, and taken by him who held it when founded." To this figure may also be referred *oxymoron*, or *seeming contradiction*; that is, when the parts of a sentence disagree in sound, but are consistent in sense. As when Ovid says of Althea, that *she was impiously pious*. And so Cato used to say of Scipio Africanus, that "he was never less at leisure, than when he was at leisure; nor less alone than when alone." By which he meant, as Cicero tells us, that "Scipio was wont to think of business in his retirement, and in his solitude to converse with himself." This is a strong and bold figure, which awakens the mind, and affords it an agreeable pleasure to find upon reflection, that what at first seemed contradictory, is not only consistent with good sense, but very beautiful.—The celebrated Dr Blair, whom we have more than once quoted in this article, has these observations on antithesis, or the contrast of two objects. "Contrast has always this effect, to make each of the contrasted objects appear in the stronger light. White, for instance, never appears so bright as when it is opposed to black, and when both are viewed together. Antithesis, therefore, may, on many occasions, be employed to advantage, in order to strengthen the impression which we intend that any object should make. In order to render an antithesis more complete, it is always of advantage, that the words and members of the sentence, expressing the contrasted objects, be similarly constructed, and made to correspond to each other. This leads us to remark the contrast more, by setting the things which we oppose more clearly over against each other; in the same manner as when we contrast a black and a white object, in order to perceive the full difference of their colour, we would choose to have both objects of the same bulk, and placed in the same light. Their resemblance to each other, in certain circumstances, makes their disagreement in others more palpable. At the same time, I must observe, that the frequent use of antithesis, especially where the opposition in the words is nice and quaint, is apt to render the

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Elocution. the style disagreeable. A maxim, or moral saying, properly enough receives this form; both because it is supposed to be the fruit of meditation, and because it is designed to be engraven on the memory, which recalls it more easily by the help of such contrasted expressions. But where a string of such sentences succeed each other, where this becomes an author's favourite and prevailing manner of expressing himself, his style is faulty; and it is upon this account Seneca has been often and justly censured. Such a style appears too studied and laboured; it gives us the impression of an author attending more to his manner of saying things, than to the things themselves which he says." There is still another kind of antithesis, which consists in surprising us by the unexpected contrasts of things which it brings together; but it is such as is wholly beneath the dignity of an orator, or of grave compositions of any sort, and is fit only for pieces of professed wit and humour, calculated only to excite laughter or create ridicule.

86 The second kind of figures of sentences. II. *Those suited to move the passions.* Which are 13; namely, *epanorthosis*, *paralepsis*, *parrhesia*, *aparithmesis*, *exergasia*, *hypotyposis*, *aporia*, *postopesis*, *erotesis*, *ecphonesis*, *epiphonema*, *apostrophe*, and *prosopoeia*.

Epanorthosis, or *correction*, is a figure, by which the speaker either recalls or amends what he had last said. It is used different ways. For sometimes one or more words are recalled by him, and others subjoined in their room; at other times, without recalling what has been said, something else is substituted as more suitable. This is a very extensive figure, and made use of in addressing to different passions. We have an instance of it in Terence's *Self-tormentor*, where the old man, whose extraordinary concern for the absence of his son gave occasion to the name of the play, thus bewails his condition to his neighbour, "I have an only son, Chremes. Alas! did I say that I have; I had indeed; but it is now uncertain whether I have or not." Here, to aggravate his misfortune, he recalls a pleasing word, and substitutes another more affecting in its place. And Cicero, in his defence of Milo, speaking to the judges concerning Clodius, says, "Are you only ignorant what laws, if they may be called laws, and not rather torches and plagues of the state, he was about to impose and force upon us?" Again, in his defence of Plancius, he says, "What greater blow could those judges, if they are to be called judges, and not parricides of their country, have given to the state, than when they banished him, who when prætor freed the republic from a neighbouring war, and when consul from a civil one?" He is speaking there of Opimius. But in commending the moderation of Lucius Mummius, who did not enrich himself, but his country, by demolishing the wealthy city of Corinth, he thus recalls his whole expression, and by giving it a new turn heightens the compliment he designed him: "He chose rather (says he) to adorn Italy than his own house; though by adorning Italy his house seems to have received the greatest ornament." And sometimes the correction is made by substituting something contrary to what had been said before; as in the following passage of Cicero: "Cæsar (meaning Augustus), though but a youth, by an incredible and surprising resolution and courage, when Antony was most enraged,

and we dreaded his cruel and pernicious return from Brundisium, at a time when we neither asked, nor expected, nor desired it (because it was thought impossible), raised a very powerful army of invincible veterans; to effect which he threw away his whole estate: Though I have used an improper word; for he did not throw it away, but employed it for the safety of the government." At other times, as has been said, the correction is made by adding a more suitable word, without any repetition of the former. Thus Cicero, after he has inveighed against the crimes of Verres, breaks out into this pathetic exclamation: *O the clemency, or rather wonderful and singular patience, of the Roman people!* He did not think the word *clemency* strong enough, and therefore adds *patience*, as better answering his design. The sudden and unexpected turn of this figure gives a surprise to the mind, and by that means renders it the more pathetic.

Paralepsis, or omission, is another of these figures, when the speaker pretends to omit, or pass by, what at the same time he declares. It is used either in praise or dispraise. Thus Cicero, in his defence of Sextius, introduces his character in this manner, with a design to recommend him to the favour of the court: "I might say many things of his liberality, kindness to his domestics, his command in the army, and moderation during his office in the province: but the honour of the state presents itself to my view; and calling me to it, advises me to omit these lesser matters." But in his oration to the senate against Rullus the tribune, who had proposed a law to sell the public lands, he makes use of this figure to represent the pernicious effects of such a law, particularly with respect to the lands in Italy. "I do not complain (says he) of the diminution of our revenues, and the woful effects of this loss and damage. I omit what may give every one occasion for a very grievous and just complaint, that we could not preserve the principal estate of the public, the finest possession of the Roman people, the fund of our provisions, the granary of our wants, a revenue entrusted with the state; but that we must give up those lands to Rullus, which, after the power of Sylla, and the largesses of the Gracchi, are yet left us. I do not say, this is now the only revenue of the state, which continues when others cease, is an ornament in peace, fails us not in war, supports the army, and does not fear an enemy. I pass over all these things, and reserve them for my discourse to the people, and only speak at present of the danger of our peace and liberties." His view here was to raise the indignation of the senate against Rullus, and excite them to oppose the law. There is a beautiful instance of this figure in St Paul's epistle to Philemon, where, after he has earnestly intreated him to receive again Onesimus his servant, who had run from him, and promised that if he had wronged him, or owed him any thing, he would repay it, he adds, *That I may not say, you owe even yourself to me.* Nothing could be a stronger motive to soften his displeasure against his servant, from a sense of gratitude to the apostle. Hermogenes has observed, that the design of this figure is to possess the minds of the audience with more than the words express, and that it is principally made use of on three occasions: either when things are small, but yet necessary to be mentioned;

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tioned; or well known, and need not be enlarged on; or ungrateful, and therefore should be introduced with caution, and not set in too strong a light.

The next figure above-mentioned was *Parrhesia*, or reprehension: Not that whenever a person admonishes or reproves another it is to be esteemed a figure; but when it is done with art and address, and in such circumstances as render it difficult not to displease.—The orator therefore sometimes prepares his hearers for this by commending them first, urging the necessity of it, representing his great concern for them as his motive, or joining himself with them. Thus Cicero charges the senate with the death of Servius Sulpicius, for sending him to Mark Antony under a very ill state of health. And his design in it was to bring them more readily into a motion he was about to make, that both a statue and a sepulchral monument might be erected to his memory at the public expence. “You (says he), it is a very severe expression, but I cannot help saying it; you, I say, have deprived Servius Sulpicius of his life. It was not from cruelty indeed, (for what is there with which this assembly is less chargeable?) but when his distemper pleaded his excuse more than his words, from the hopes you conceived that there was nothing which his authority and wisdom might not be able to effect, you vehemently opposed his excuse, and obliged him, who always had the greatest regard for your commands, to recede from his resolution.” Sometimes, indeed, the orator assumes an air of reproof, with a view only to pass a compliment with a better grace. As Cicero in his address to Cæsar, when he says, “I hear that excellent and wise saying from you with concern, That you have lived long enough, either for the purposes of nature, or glory: for nature perhaps, if you think so; and, if you please, for glory; but, what is principally to be regarded, not for your country.” It adds both a beauty and force to this figure, when it is expressed in a way of comparison. As in the following instance of Cicero: “But since my discourse leads me to this, consider how you ought to be affected for the dignity and glory of your empire. Your ancestors often engaged in war to redress the injuries of their merchants or sailors: how ought you then to resent it, that so many thousand Roman citizens were murdered by one message, and at one time? Your forefathers destroyed Corinth, the principal city in Greece, for the haughty treatment of their ambassadors; and will you suffer that king to go unpunished who has put to death a Roman legate, of consular dignity, in the most ignominious as well as most cruel manner? See, lest, as it was their honour to leave you the glory of so great an empire, it should prove your disgrace not to be able to maintain and defend what you have received from them.” By this figure an address is made to the more tender passions, modesty, shame, and emulation, the attendants of an ingenuous temper, which is soonest touched, and most affected, by a just reproof.

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Another of these pathetic figures is *Aparithmesis*, or enumeration, when that which might be expressed in general by a few words, is branched out into several particulars, to enlarge the idea, and render it the more affecting. Cicero, in pleading for the Manilian Law, where his design is to conciliate the love and esteem of the people to Pompey, thus enlarges upon

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his character: “Now, what language can equal the virtue of Cneius Pompey? What can be said either worthy of him, or new to you, or which every one has not heard? For those are not the only virtues of a general which are commonly thought so; labour in affairs, courage in dangers, industry in acting, dispatch in performing, design in contriving; which are greater in him than in all other generals we have ever seen or heard of.” And so likewise, when he endeavours to dispossess Pompey of the apprehension that Milo designed to assassinate him: “If (says he) you fear Milo; if you imagine that either formerly, or at present, any ill design has been formed by him against your life; if the soldiers raised through Italy (as some of your officers give out), if these arms, if these cohorts in the Capitol, if the centries, if the watch, if the guards which defend your person and house, are armed to prevent any attempt of Milo, and all of them appointed, prepared, and stationed on his account; he must be thought a person of great power, and incredible resolution, above the reach and capacity of a single man, that the most consummate general, and the whole republic are in arms against him only. But who does not perceive, that all the disordered and sinking parts of the state are committed to you, to rectify and support them by these forces?” This might have been said in a few words, that such vast preparations could never be intended for so low a purpose. But the orator’s view was to expose that groundless report, and shame it out of countenance. And soon after he endeavours to raise compassion for Milo under those prejudices by the same figure: “See how various and changeable is the state of human life, how unsteady and voluble is fortune, what infidelity in friends, what disguises suited to the times, what flights, what fears, even of the nearest acquaintance, at the approach of dangers.” Had no address to the passions been designed here, fewer of these reflections might have been sufficient. The use of this figure in amplification is very evident from the nature of it, which consists in unfolding of things, and by that means enlarging the conception of them.

Exergasia, or exposition, has an affinity with the former figure: but it differs from it in this, that it consists of several equivalent expressions, or nearly such, in order to represent the same thing in a stronger manner; whereas the other enlarges the idea by an enumeration of different particulars. So that this figure has a near relation to synonymia, of which we have treated before under *Verbal figures*. We have an instance of it in Cicero’s defence of Sextius, where he says, “Those who at any time have incited the populace to sedition, or blinded the minds of the ignorant by corruption, or traduced brave and excellent men, and such as deserved well of the public, have with us always been esteemed vain, bold, bad, and pernicious citizens. But those who repressed the attempts and endeavours of such as, by their authority, integrity, constancy, resolution, and prudence, withstood their insolence, have been always accounted men of solidity, the chiefs, the leaders, and supporters of our dignity and government.” Nothing more is intended by this passage, but to set the opposite characters of factious persons and true patriots in the strongest light, with a view to recommend the one, and create a just hatred and detestation of the other.

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Elocution. So elsewhere he represents the justice of self-defence in no less different terms: "If reason (says he) prescribes this to the learned, and necessity to barbarians, custom to nations, and nature itself to brutes, always to ward off all manner of violence, by all possible ways, from their body, from their head, from their life; you cannot judge this to be a criminal and wicked action, without judging at the same time that all persons who fall among robbers and assassins must either perish by their weapons, or your sentence."—He is addressing here to the judges in favour of Milo. The warmth and vehemence of the speaker often runs him into this figure, when he is affected with his subject, and thinks no words, no expressions, forcible enough to convey his sentiments; and therefore repeats one after another, as his fancy suggests them. This flow of expression, under the conduct of a good judgment, is often attended with advantage: as it warms the hearers, and impresses their minds, excites their passions, and helps them to see things in a stronger light.

Hypotyposis, or imagery, is a description of things painted in such strong and bright colours, as may help the imagination of the hearers to conceive of them rather as present to their view, than described in words. It is peculiarly suited for drawing characters; and often affords the finest ornaments in poetry and history, as well as oratory. Nor is it less moving, but suited to strike different passions, according to the nature of the subject, and artful management of the speaker. Cicero has thus drawn the picture of Catiline, consisting of an unaccountable mixture of contrary qualities. "He had (says he) the appearance of the greatest virtues: he made use of many ill men to carry on his designs, and pretended to be in the interest of the best men; he had a very engaging behaviour, and did not want industry nor application; he gave into the greatest looseness, but was a good soldier. Nor do I believe there was ever the like monster in the world, made of such jarring and repugnant qualities and inclinations. Who at one time was more acceptable to the best men, and who more intimate with the worst? Who was once a better patriot, and who a greater enemy to this state? Who more devoted to pleasures, who more patient in labours? Who more rapacious, and yet more profuse? He suited himself to the humours of all he conversed with; was serious with the reserved, and pleasant with the jocular; grave with the aged, and facetious with the young; bold with the daring, and extravagant with the profligate." Such a character of a man, when accompanied with power and interest, must render him no less the object of fear than detestation, which was the design of Cicero in this description. And elsewhere, in order to prevail with the senate to direct the execution of those conspirators with Catiline who were then in prison, he paints the most dismal scene of that horrid design in the strongest colours. "Methinks (says he) I see this city, the light of the world, and citadel of all nations, suddenly falling into one fire; I perceive heaps of miserable citizens hurried in their ruined country; the countenance and fury of Cethegus raging in your slaughter, presents itself to my view." This figure is very serviceable in amplification, as we have formerly shown in treating upon that subject. But no small judgment is required in the management of descriptions. Lesser circum-

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stances should either be wholly omitted, or but slightly touched; and those which are more material drawn in their due proportion. Nature is as much the rule of the orator as of the painter, and what they both propose to imitate. And therefore, let a thought be ever so pleasing and beautiful in itself, it must not be introduced when foreign to the purpose, or out of its place, any more than a painter should attempt to alter nature, when he proposes to copy it. This figure requires likewise a vigorous and lively genius. For the images in description can rise no higher than the conception of the speaker, since the idea must first be formed in his own mind before he can convey it to others; and agreeably to the clearness with which he conceives it himself, he will be able to express it in words.

Aporia, or doubt, expresses the debate of the mind with itself upon a pressing difficulty. A person in such a state is apt to hesitate, or start several things successively, without coming to any fixed resolution. The uneasiness arising from such a disorder of thought is naturally very moving. Of this kind is that of Cicero for Cluentius, when he says, "I know not which way to turn myself. Shall I deny the scandal thrown upon him of bribing the judges? Can I say the people were not told of it? that it was not talked of in the court? mentioned in the senate? Can I remove an opinion so deeply and long rooted in the minds of men? It is not in my power. You, judges, must support his innocence, and rescue him from this calamity." Orators sometimes choose to begin their discourse with this figure. A diffidence of mind at first is not unbecoming, but graceful. It carries in it an air of modesty, and tends very much to conciliate the affections of the hearers. Livy gives us a very elegant example of this in a speech of Scipio Africanus to his soldiers, when, calling them together after a sedition, he thus bespeaks them: "I never thought I should have been at a loss in what manner to address my army. Not that I have applied myself more to words than things; but because I have been accustomed to the genius of soldiers, having been trained up in the camp almost from my childhood. But I am in doubt what or how to speak to you, not knowing what name to give you. Shall I call you *citizens*, who have revolted from your country? *Soldiers*, who have disowned the authority of your general, and broke your military oath? *Enemies*? I perceive the mien, the aspect, and habit of citizens; but discern the actions, words, designs, and dispositions of enemies."

Sometimes a passion has that effect, not so much to render a person doubtful what to say, as to stop him in the midst of a sentence, and prevent his expressing the whole of what he designed; and then it is called *Apopsioesis, or concealment*. It denotes different passions; as anger, which, by reason of its heat and vehemence, causes persons to break off abruptly in their discourse. So the old man in Terence, when he was jealous that his servant obstructed his designs, uses this imperfect, but threatening expression, *Whom, if I find*. And Neptune, when described by Virgil as very angry that the winds should presume to disturb the sea without his permission, after he has called them to him to know the reason of it, threatens them in this abrupt manner:

"Whom I—but first I'll lay the storm."
But Cicero, in writing to Atticus, applies it to express

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prefers grief, where he says, "I know nothing of Pompey, and believe he must be taken, if he is not got on shipboard. O incredible swiftness! But of our friend—Though I cannot accuse him without grief, for whom I am in so much concern and trouble." And in a letter to Cassius he uses it to express fear, when he says to him, "Brutus could scarce support himself at Mutina; if he is safe, we have carried the day. But if—heaven avert the omen! all must have recourse to you." His meaning is, "If Brutus should be defeated."

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The next figure is *erotesis*, or *interrogation*. But every interrogation or question is not figurative. When we inquire about a thing that is doubtful, in order to be informed, this is no figure, but the natural form of such expressions. As if I ask a person, *Where he is going?* or *What he is doing?* But then it becomes figurative when the same thing may be expressed in a direct manner; but the putting it by way of question gives it a much greater life and spirit. As when Cicero says, "Catiline, how long will you abuse our patience? do not you perceive your designs are discovered?" He might indeed have said, *You abuse our patience a long while. You must be sensible your designs are discovered.* But it is easy to perceive how much this latter way of expression falls short of the force and vehemence of the former. And so when Medea says, *I could save; and do you ask if I can destroy?* Had she said, *I could save, and I can destroy*, the sentence had been flat, and very unfit to express the rage and fury in which the poet there represents her. This figure is suited to express most passions and emotions of the mind, as anger, disdain, fear, desire, and others. It serves also to press and bear down an adversary. Cicero frequently makes this use of it. As in his defence of Plancius: "I will make you this offer (says he), choose any tribe you please, and show, as you ought, by whom it was bribed; and if you cannot, as I believe you will not undertake it, I will prove how he gained it. Is this a fair contest? Will you engage on this foot? I cannot give you fairer play. Why are you silent? Why do you dissemble? Why do you hesitate? I insist upon it, urge you to it, press it, require, and even demand it of you." Such a way of pushing an antagonist shows the speaker has great confidence in his cause; otherwise he would never lay himself so open, if he was not assured the other party had nothing to reply. This figure likewise diversifies a discourse, and gives it a beautiful variety, by altering the form of expression, provided it be neither too frequent, nor continued too long at once. And besides, the warmth and eager manner in which it is expressed, enlivens the hearers, and quickens their attention.

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Ecphonesis, or *exclamation*, is a vehement extension of the voice, occasioned by a commotion of mind, naturally venting itself by this figure, which is used by Cicero to express a variety of passions. It often denotes resentment or indignation. Thus, after his return from banishment, reflecting on those who had occasioned it, he breaks out into this moving exclamation: "O mournful day to the senate, and all good men, calamitous to the state, afflictive to me and my family, but glorious in the view of posterity!" His design was to excite an odium against the authors of his exile, when recalled in so honourable a manner.

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And again, in his defence of Cælius: "O the great force of truth; which easily supports itself against the wit, craft, subtilty, and artful designs of men!" He had been just showing the absurdity of the charge against Cælius, and now endeavours to expose his accusers to the indignation of the court. At other times it is used to express disdain or contempt. As when speaking of Pompey's house, which was bought by Mark Antony, he says: "O consummate impudence! dare you go within that house! dare you enter that venerable threshold, and show your audacious countenance to the tutelar deities which reside there?" Nor is it less suited to indicate grief, as when he says of Milo: "O that happy country, which shall receive this man! ungrateful this, if it banish him! miserable, if it lose him!" And sometimes it serves to express admiration; as when, in compliment to Cæsar, he says, "O admirable clemency! worthy of the greatest praise, the highest encomiums, and most lasting monuments!" It has its use also in ridicule and irony. As in his oration for Balbus, where he derides his accuser, by saying, "O excellent interpreter of the law! master of antiquity! corrector and amender of our constitution!" The sacred writers sometimes use it by way of intreaty or wish. As the royal Psalmist: "O that I had the wings of a dove, that I might flee away, and be at rest!" And at other times in triumph and exultation, as in that of St Paul: "O death, where is thy sting! O grave, where is thy victory!" It is frequently joined with the preceding figure *interrogation*; as appears in some of the instances here brought from Cicero. And it generally follows the representation of the thing which occasions it. Though sometimes it is made use of to introduce it, and then it serves to prepare the mind by exciting its attention. Thus Cicero, in his defence of Cælius, to render the character of Clodia more odious, at whose instigation he was accused, insinuates that she had before poisoned her husband; and to heighten the barbarity of the fact, and make it appear the more shocking, he introduces the account of it, with this moving exclamation: "O heavens, why do you sometimes wink at the greatest crimes of mankind, or delay the punishment of them to futurity!"

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Epiphonema, or *acclamation*, has a great affinity with the former figure. And it is so called, when the speaker, at the conclusion of his argument, makes some lively and just remark upon what he has been saying, to give it the greater force, and render it the more affecting to his hearers. It is not so vehement and impetuous as exclamation, being usually expressive of the milder and more gentle passions. And the reflection ought not only to contain some plain and obvious truth, but likewise to arise naturally from the discourse which occasioned it, otherwise it loses its end. When Cicero has shown, that recourse is never to be had to force and violence, but in cases of the utmost necessity, he concludes with the following remark: "Thus to think, is prudence; to act, fortitude; both to think and act, perfect and consummate virtue." And elsewhere, after he has described a singular instance of cruelty and breach of friendship: "Hence (says he) we may learn, that no duties are so sacred and solemn, which covetousness will not violate." This figure is frequently expressed in a way of admiration. As when Cicero has observed, that all men are desirous to live

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The next figure in order is *apostrophe*, or *address*, when the speaker breaks off from the series of his discourse, and addresses himself to some particular person present or absent, living or dead; or to inanimate nature, as endowed with sense and reason. By this means he has an opportunity of saying many things with greater freedom than perhaps would be consistent with decency if immediately directed to the persons themselves. He can admonish, chide, or censure, without giving offence. Nor is there any passion, but may be very advantageously expressed by this figure. When an orator has been speaking of any particular person, on a sudden to turn upon him, and apply the discourse to that person himself, is very moving; it is like attacking an adversary by surprise, when he is off his guard, and where he least expects it. Thus Cicero: "I desire, senators, to be merciful, but not to appear negligent in so great dangers of the state; tho' at present I cannot but condemn myself of remissness. There is a camp formed in Italy, at the entrance of Etruria, against the state; our enemies increase daily; but we see the commander of the camp, and general of the enemies, within our walls, in the very senate, contriving some intestine ruin to the state. If now, Catiline, I should order you to be seized and put to death, I have reason to fear, that all good men would rather think I had deferred it too long, than charge me with cruelty. But I am prevailed with for a certain reason not to do that yet, which ought to have been done long since." This sudden turn of the discourse to Catiline himself, and the address to him in that unexpected manner, must have touched him very sensibly. So, in his defence of Milo, expressing his concern if he should not succeed in it, he says, "And how shall I answer it to you, my brother Quintus, the partner of my misfortunes, who art now absent." And elsewhere addressing to the soldiers of the Martian legion, who had been killed in an engagement with Mark Antony, he thus bespeaks them: "O happy death, which due to nature, was paid to your country! I may esteem you truly born for your country, who likewise received your name from Mars; so that the same deity seems to have produced this city for the world, and you for this city." And in his oration for Balbus he thus calls upon dumb nature to witness to Pompey's virtues: "I invoke you, mute regions; you, most distant countries; you seas, havens, islands, and shores. For what coast, what land, what place is there, in which the marks of his courage, humanity, wisdom, and prudence, are not extant?" An appeal to heaven, or any part of inanimate nature, has something very sublime and solemn in it, which we often meet with in sacred writ. So the divine prophet: "Hear, O heavens! and give ear, O earth! for the Lord hath spoken." And in like manner, the prophet Jeremy: "Be astonished, O ye heavens, at this." See APOSTROPHE.

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Prosopopeia, or *the fiction of a person*: by which, either an absent person is introduced speaking; or one who is dead, as if he was alive and present; or speech attributed to some inanimate being. There is no

figure, perhaps, which serves more or better purposes to an orator than this. For by this means he is enabled to call in all nature to his assistance, and can assign to every thing such parts as he thinks convenient. There is scarce any thing fit to be said, but may be introduced this way. When he thinks his own character is not of sufficient weight to affect his audience in the manner he desires, he substitutes a person of greater authority than himself to engage their attention. When he has severe things to say, and which may give offence as coming from himself; he avoids this, by putting them into the mouth of some other person from whom they will be better taken; or makes inanimate nature bring a charge, or express a resentment, to render it the more affecting. And by the same method he sometimes chooses to secure himself from a suspicion of flattery, in carrying a compliment too high. We meet with several very beautiful instances of this figure in Cicero; but an example of each sort may here suffice, beginning with that of an absent person, from his defence of Milo, whom he thus introduces as speaking to the citizens of Rome: "Should he, holding the bloody sword, cry out, Attend, I pray, hearken, O citizens, I have killed Publius Clodius; by this sword, and by this right hand, I have kept off his rage from your necks, which no laws, no courts of judicature, could restrain; it is by my means, that justice, equity, laws, liberty, shame, and modesty, remain in the city. Is it to be feared how the city would bear this action? Is there any one now, who would not approve and commend it." And in his oration for Balbus, he introduces Marius, who was then dead, to plead in his defence: "Can Balbus (says he) be condemned, without condemning Marius for a like fact? Let him be present a little to your thoughts, since he cannot be so in person; that you may view him in your minds, though you cannot with your eyes. Let him tell you, he was not unacquainted with leagues, void of examples, or ignorant of war." And again, in his first invective against Catiline, he represents his country as thus expostulating with himself, and upbraiding him for suffering such a criminal as Catiline to live. "Should my country (says he), which is much dearer to me than my life, should all Italy, all the state, thus address me, Mark Tully what do you do? Do you suffer him, whom you have found to be an enemy, who you see is to be at the head of the war, whom you perceive your enemies wait for in their camp as their general, who has been the contriver of this wickedness, the chief of the conspiracy, the exciter of slaves and profligate citizens, to leave the city, which is rather to bring him in, than let him out? Will not you order him to be imprisoned, condemned, and executed? What prevents you? The custom of our ancestors? But private persons have often punished pernicious citizens in this state. The laws relating to the punishment of Roman citizens? But traitors never had the rights of citizens. Do you fear the censure of posterity? Truly you make a very handsome return to the people of Rome, who have advanced you from an obscure condition so early to the highest dignity; if you neglect their safety to avoid envy, or from the apprehension of any danger. And if you fear censure; which is most to be dreaded, that which may arise from justice and fortitude, or from

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cowardice and treachery? When Italy shall be wasted by a war, cities plundered, and houses burnt, do you think then to escape the severest censure." In the management of this figure, care should be taken that what is said be always consistent with the character introduced, in which both the force and beauty of it consist.

In treating upon figures, we have hitherto considered them separately; but it may not be amiss to observe, that some expressions consist of a complication of them, and may come under the denomination of several figures, as well verbal as those of sentences, differently considered. Thus when Cicero says, "What, Tubero, did your drawn sword do in the Pharsalian battle? at whose side was its point directed? what was the intention of your arms?" As he speaks to Tubero, it is an apostrophe; as the expressions have much the same import, and are designed to heighten and aggravate the fact, it is *exergasia*; and as they are put by question, it is *interrogation*. So likewise, in his second Philippic, where he says, "What can I think? that I am contemned? I see nothing in my life, interest, actions, or abilities, as moderate as they are, which Antony can despise. Did he think he could easily lessen me in the senate? But they, who have commended many famous citizens for their good government of the state, never thanked any but me for preserving it. Would he contend with me for eloquence? This would be a favour indeed. For what could be a larger and more copious subject, that for me to speak for myself against Antony? His design was really this: he thought he could not convince his associates, that he was truly an enemy to his country, unless he was so first to me." There are three figures in this passage; *doubt*, *interrogation*, and *subjection*. And again, when he introduces Sicily thus addressing Verres in a way of complaint: "Whatever gold, whatever silver, whatever ornaments in my cities, dwellings, temples, whatever right of any kind I possessed by the favour of the senate and people of Rome; you, Verres, have plundered and taken from me." Here is a *protopopeia*, joined with the verbal figure *anaphora*, as several members of the sentence begin with the same word. The like instances of complex figures frequently occur, and therefore we need not multiply examples of them here.

PARTICULAR ELOCUTION,

Or that part of Elocution which considers the several Properties and Ornaments of Language, as they are made use of to form different sorts of Style.

CHAP. IV: Of Style, and its different Characters.

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Particular
elocution
treats of
style and
its various
characters.

The word *style*, properly signifies the instrument which the ancients used in writing. For as they commonly wrote upon thin boards covered over with wax, and sometimes upon the barks of trees, they made use of a long instrument like a bodkin, pointed at one end, with which they cut their letters; and broad at the other, to erase any thing they chose to alter. And this the Latins called *stylus*. But though this be the first sense of the word, yet afterwards it came

to denote the manner of expression. In which sense we likewise use it, by the same kind of trope that we call any one's writing his *hand*. Style, then, in the common acceptation of the word at present, is the peculiar manner in which a man expresses his conceptions by means of language. It is a picture of the ideas which rise in his mind, and of the order in which they are there produced. As to the reasons which occasion a variety of style, they are principally these.

Since both speech and writing are only sensible expressions of our thoughts, by which we communicate them to others; as all men think more or less differently, so consequently they in some measure differ in their style. No two persons, who were to write upon one subject, would make use of all the same words. And were this possible, yet they would as certainly differ in their order and connection, as two painters, who used the same colours in painting the same picture, would necessarily vary their mixtures and disposition of them, in the several gradations of lights and shades. As every painter therefore has something peculiar in his manner, so has every writer in his style. It is from these internal characters, in a good measure, that critics undertake to discover the true authors of anonymous writings; and to show that others are spurious, and not the genuine productions of those whose names they bear; as they judge of the age of such writings from the words and manner of expression which have been in use at different times. And we may often observe in persons a fondness for some particular words or phrases; and a peculiarity in the turn or connection of their sentences, or in their transitions from one thing to another; by which their style may be known, even when they design to conceal it. For these things, through custom and habit, will sometimes drop from them, notwithstanding the greatest caution to prevent it.

There is likewise very often a considerable difference in the style of the same person, in several parts of his life. Young persons, whose invention is quick and lively, commonly run into a pompous and luxuriant style. Their fancy represents the images of things to their mind in a gay and sprightly manner, clothed with a variety of circumstances; and while they endeavour to set off each of these in the brightest and most glittering colours, this renders their style verbose and florid, but weakens the force and strength of it. And therefore, as their imagination gradually cools, and comes under the conduct of a more mature judgment, they find it proper to cut off many superfluities; so that by omitting unnecessary words and circumstances, and by a closer connection of things placed in a stronger light, if their style becomes less swelling and pompous, it is, however, more correct and nervous. But as old age sinks the powers of the mind, chills the imagination, and weakens the judgment; the style, too, in proportion usually grows dry and languid. Critics have observed something of this difference in the writings even of Cicero himself. To be master of a good style, therefore, it seems necessary that a person should be endowed with a vigorous mind and lively fancy, a strong memory, and a good judgment. It is by the imagination that the mind conceives the images of things. If the impressions of those images be clear and distinct, the style will be so too;

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too; since language is nothing but a copy of those images first conceived by the mind. But if the images are faint and imperfect, the style will accordingly be flat and languid. This is evident from the difference between such objects as are represented to our sight, and things of which we have only read or heard. For as the former generally make a deeper impression upon our minds, so we can describe them in a more strong and lively manner. And we commonly find, that, according as persons are affected themselves when they speak, they are able to affect others with what they say. Now persons are more or less affected with things in proportion to the impressions which the images of those things make upon the mind. For the same reason also, if the imagination be dull, and indisposed to receive the ideas of things, the style will be stiff and heavy; or if the images are irregular and disordered, the style will likewise be perplexed and confused. When things lie straight (as we say) in the mind, we express them with ease, and in their just connection and dependence; but when they are warped and crooked, we deliver them with pain and difficulty, as well as disorder. A good fancy should likewise be accompanied with a happy memory. This helps us to retain the names of those things the ideas whereof are presented to the mind by the imagination, together with proper and suitable phrases to express them in their several connections and relations to each other. When the images of things offer themselves to the mind, unless the names of them present themselves at the same time, we are at a loss to express them, or at least are in danger of doing it by wrong and improper terms. Besides, variety is necessary in discourse to render it agreeable; and therefore, without a large furniture of words and phrases, the style will necessarily become insipid and jejune, by the frequent return of the same terms and manner of expression. But to both these a solid judgment is highly requisite to form a just and accurate style. A fruitful imagination will furnish the mind with plenty of ideas, and a good memory will help to clothe them in proper language; but unless they are both under the conduct of reason, they are apt to hurry persons into many inconveniences. Such are generally great talkers, but far from good orators. Fresh images continually crowd in upon them, faster than the tongue can well express them. This runs them into long and tedious discourses, abounding with words, but void of sense. Many impertinencies, if not improprieties, necessarily mix themselves with what they say; and they are frequently carried off from their point, by not having their fancies under a proper regulation. So that such discourses, though composed perhaps of pretty expressions, rhetorical flowers, and sprightly sallies of wit, yet fall very much short of a strong and manly eloquence. But where reason presides and holds the reins, every thing is weighed before it is spoken. The properest words are made choice of, which best suit the ideas they are designed to convey; rather than the most gay and pompous. All things are not said which offer themselves to the mind, and fancy dictates; but such only as are fit and proper, and the rest are dropped. Some things are but slightly mentioned, and others discoursed on more largely and fully, according to their different importance. And every thing is placed in that order, and

clothed in such a dress, as may represent it to the greatest advantage. So that, in a word, the foundation of a good style is chiefly good sense. Where these qualities all meet in a considerable degree, such persons have the happiness to excel, either in speaking or writing. But this is not generally the case. Many persons of a vigorous and sprightly imagination, have but a weak judgment; and others much more judicious can think but slowly. And it is this, in a great measure, which makes the difference between speaking and writing well, as one or the other of these qualities is predominant. A person of a lively fancy, ready wit, and voluble tongue, will deliver himself off hand much better and more acceptably, than one who is capable upon due premeditation, to discern farther into the subject, but cannot command his thoughts with the same ease and freedom. And this latter would have the same advantage of the other, were they both coolly to offer their sentiments in writing. Many things appear well in speaking, which will not bear a strict scrutiny. While the hearer's attention is obliged to keep pace with the speaker, he is not at leisure to observe every impropriety or incoherence, but many slips easily escape him, which in reading are presently discovered. Hence it is often found, that discourses, which were thought very fine when heard, appear to have much less beauty, as well as strength, when they come to be read. And therefore it is not without reason, that Cicero recommends to all those who are candidates for eloquence, and desirous to become masters of a good style, to write much. This affords them an opportunity to digest their thoughts, weigh their words and expressions, and give every thing its proper force and evidence; as likewise, by reviewing a discourse when composed, to correct its errors, or supply its defects; till by practice they gain a readiness both to think justly, and to speak with propriety and eloquence. But it is time to proceed to some other causes of the diversity of style.

Different countries have not only a different language, but likewise a peculiarity of style suited to their temper and genius. The eastern nations had a lofty and majestic way of speaking. Their words are full and sonorous, their expressions strong and forcible, and warmed with the most lively and moving figures. This is very evident from the Jewish writings in the Old Testament, in which we find a most agreeable mixture of simplicity and dignity. On the contrary, the style of the more northern languages generally partakes of the chillness of their climate. "There is (says Mr Addison*) a certain coldness and indifference in the phrases of our European languages, when they are compared with the oriental forms of speech. And it happens very luckily, that the Hebrew idioms run into the English tongue with a peculiar grace and beauty. Our language has received innumerable elegancies and improvements from that infusion of Hebrewisms, which are derived to it out of the poetical passages in holy writ. They give a force and energy to our expressions, warm and animate our language, and convey our thoughts in more ardent and intense phrases than any that are to be met with in our own tongue. There is something so pathetic in this kind of diction, that it often sets the mind in a flame, and makes our hearts burn within us."

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Again, people of different nations vary in their customs and manners, which occasions a diversity in their style. This was very remarkable in the Attics, Asiatics, and Rhodians, and is often taken notice of by ancient writers. The Athenians, while they continued a free state, were an active, industrious, and frugal people; very polite indeed, and cultivated arts and sciences beyond any other nation: but as they had powerful enemies, and were exceedingly jealous of their liberties, this preserved them from wantonness and luxury. And their way of speaking was agreeable to their conduct; accurate and close, but very full and expressive. The Asiatics, on the other hand, were more gay, and loose in their manners, devoted to luxury and pleasure; and accordingly they affected a florid and swelling style, filled with redundancies and superfluities of expression. Indeed, some of the ancients have attributed this looseness of style to their way of pursuing eloquence at first. For as they were put upon it by conversing with the Greek colonies who settled among them, they suppose, that, in imitating them, before they were masters of the language, they were often obliged to make use of circumlocutions, which afterwards became habitual, and very much weakened the force of their expressions, as it naturally would do. But one would think, if they were put to this necessity at first, when they found its ill effect, they might easily have amended it afterwards, as they grew better acquainted with the Greek language, had they been inclined so to do. The Rhodian style was a medium between the other two; not so concise and expressive as the Attic, nor yet so loose and redundant as the Asiatic. Quintilian says, it had a mixture of its author, and the humour of the people; and, like plants set in a foreign soil, degenerated from the Attic purity, but not so wholly as to lose it. They first received it from Æschines, who being worsted in his famous contest with Demosthenes, retired thither, and taught rhetoric, which put them upon the study of eloquence.

The style of the same country likewise very much alters in different ages. Cicero tells us, that the first Latin historians aimed at nothing more than barely to make themselves intelligible, and that with as much brevity as they could. Those who succeeded them advanced a step further; and gave somewhat a better turn and cadency to their sentences, though still without any dress or ornament. But afterwards, when the Greek language became fashionable at Rome, by copying after their writers, such as Herodotus, Thucydides, Xenophon, and others, they endeavoured to introduce all their beauties into their own tongue, which in Cicero's time was brought to its highest perfection. But it did not long continue in that state. A degeneracy of manners soon altered their taste, and corrupted their language, which Quintilian very much complains of in his time. The case was the same with respect to the Greek tongue; though that had the good fortune to continue its purity much longer than the Latin. Nor can any language be exempt from the common fate of all human productions; which have their beginning, perfection, and decay. Besides, there is a sort of fashion in language, as well as other things; and the generality of people are always fond

of running into the mode. Perhaps some one, or a few persons, fall into a manner which happens to please. This gives them a reputation; and others immediately copy after them, till it generally prevail. Cicero tells us, that the most ancient Greek orators whose writings were extant in his time, such as Pericles, Alcibiades, and others, were subtle, acute, concise, and abounded in sense rather than words. But another set that followed them, of which were Critias, Theramenes, and Lysias, retained the good sense of the former, and at the same time took more care of their style; not leaving it so bare as the former had done, but furnishing it with a better dress. After these came Isocrates, who added all the flowers and beauties of eloquence. And as he had abundance of followers, they applied these ornaments and decorations according to their different genius; some for pomp and splendor; and others to invigorate their style, and give it the greater force and energy. And in this latter way Demosthenes principally excelled. Now as each of these manners had its peculiar beauties, and generally prevailed in different ages, Cicero thinks this could not have happened otherwise than from imitation. And he attributes it to the same cause, that afterwards they sunk into a softer and smoother manner, not less exact and florid, but more cold and lifeless. If we take a view of our own tongue, Chaucer seems to have been the first who made any considerable attempts to cultivate it. And whoever looks into his writings, will perceive the difference to be so great from what it is at present, that it scarce appears to be the same language. The gradual improvements it has since received, are very evident in the writers almost of every succeeding age since that time; and how much farther it may still be carried, time only can discover. See LANGUAGE *passim*: For the English language in particular, see n^o 38. for the other European languages, as well as the Greek and Latin, see n^o 27, &c.

Another cause of the variety of style arises from the different nature and properties of language. A difference in the letters, the make of the words, and the order of them, do all affect the style. So Quintilian observes, that the Latin tongue cannot equal the Greek in pronunciation, because it is harsher. The Latins want two of the softest Greek letters, *υ* and *ζ*; and use others of a very hard sound, which the Greeks have not, as *f* and *g*. Again, many Latin words end in *m*; a letter of a broad and hollow sound, which never terminates any Greek word; but *υ* does frequently, whose sound is much softer and sweeter. Besides, in the combination of syllables, the letters *h* and *d* are often so situated, as to require too strong and unequal a force to be laid upon them, as in the words *obversus* and *adjungo*. Another advantage of the Greek tongue arises from the variety and different seat of the accents: for the Greeks often accent the last syllable, which both enlivens the pronunciation and renders it more musical; whereas the Latins never do this. But the greatest advantage of the Greeks lies in their plenty and variety of words; for which reason they have less occasion for tropes or circumlocutions, which, when used from necessity, have generally less force, and weaken the style. But under these disadvantages,

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Elocution. Quintilian seems to give his countrymen the best advice the case will admit of: That what they cannot do in words, they should make up in sense. If their expressions are not so soft and tender, they should exceed in strength; if they are less subtle, they should be more sublime; and if they have fewer proper words, they should excel in the beauty as well as number of their figures. If this account of Quintilian be just, that the Greek tongue does surpass the Latin in all these instances, it is certain that both of them have much greater advantages over some modern languages. The varying all their declinable words, both nouns and verbs, by terminations, and not by signs, contributes very much to the smoothness and harmony of their periods. Whereas in the modern languages, those small particles and pronouns which distinguish the cases of nouns and the tenses and persons of verbs, hinder the run of a period, and render the sound much more rough and uneven. Besides, the ancient languages seem to have a better and more equal mixture of vowels and consonants, which makes their pronunciation more easy and musical.

But the chief distinction of style arises from the different subjects or matter of discourse. The same way of speaking no more suits all subjects, than the same garment would all persons. A prince and a peasant ought not to have the same dress; and another different from both becomes those of a middle station in life. The style therefore should always be adapted to the nature of the subject, which rhetoricians have reduced to three ranks or degrees; the *low* or *plain* style, the *middle* or *temperate*, and the *lofty* or *sublime*: Which are likewise called *characters*, because they denote the quality of the subject upon which they treat. This division of style into three characters, was taken notice of very early by ancient writers. Some have observed it even in Homer, who seems to assign the *sublime* or magnificent to Ulysses, when he represents him so copious and vehement an orator, that his words came from him *like winter snow*. On the contrary, he describes Menelaus as a *polite* speaker, but *concise* and *moderate*. And when he mentions Nestor, he represents his manner as between these two, not so high and lofty as the one, nor yet so low and depressed as the other; but smooth, even, and pleasant, or, as he expresses it, *more sweet than honey*. Quintilian observes, that although accuracy and politeness were general characters of the Attic writers; yet among their orators, Lyfias excelled in the *low* and *familiar* way; Isocrates for his *elegancy*, *smoothness*, and the *fine turn* of his periods; and Demosthenes for his *flame* and *rapidity*, by which he carried all before him. And Gellius tells us, that the like difference was found in the three philosophers who were sent from the Athenians to Rome (before the Romans had any relish for the polite arts) to solicit the remittance of a fine laid upon them for an injury done to a neighbouring state. Carneades, one of those ambassadors, was *vehement* and *rapid* in his harangues; Critolaus, *neat* and *smooth*; and Diogenes, *modest* and *sober*. The eloquence of these orators, and the agreeable variety of their different manner, so captivated the Roman youth, and inflamed them with a love of the Grecian arts, that old Cato, who did all he could to check it by hurrying away the ambassa-

dors, could not prevent their vigorous pursuit of them, till the study became in a manner universal. And the old gentleman afterwards learned the Greek language himself, when it became more fashionable. Which a noble writer of ours * represents as a *punishment upon* * Lord Ba- him for his former crime. It seldom happens that the same person excels in each of these characters. They seem to require a different genius, and most people are naturally led to one of them more than another; though all of them are requisite for an orator upon different occasions, as we shall show hereafter.

CHAP. V. Of the Low Style.

THIS we shall consider under two heads, *thoughts* ¹⁰⁰ The low and *language*; in each of which the several characters ^{style con-} are distinguished from one another. ^{sidered}

1. And with respect to the former, as the subjects ^{both as to} proper for this style are either common things, or such ^{thoughts} as should be treated in a plain and familiar way; so ^{and lan-} plain thoughts are most suitable to it, and distinguish ^{guage.} it from the other characters.

Now, by plain thoughts, are meant such as are ¹⁰¹ simple and obvious, and seem to rise naturally from the subject, when duly considered; so that any one, upon first hearing them, would be apt to imagine they must have occurred to himself. Not that this is really the case, but because the more natural a thing is, the more easy it seems to be; though in reality it is often otherwise; and the perfection of art lies in its nearest resemblance to nature. And therefore, in order to speak plainly and clearly upon any subject, it must first be duly considered, well understood, and thoroughly digested in the mind; which, though it require labour and study, yet the more a person is master of what he says, the less that labour will appear in his discourse. This natural plainness and simplicity, without any disguise or affectation, very much contributes to give credit to what is said. Nor is any thing more apt to impose on us, than the appearance of this, when artfully assumed. Cicero's account of the fight between Milo and Clodius, in which Clodius was killed, is a remarkable instance of this. "When Clodius knew (says he) that Milo was obliged to go to Lanuvium upon a solemn and necessary occasion, he immediately hastened from Rome, the day before, to assassinate him before Clodius's own house, as appeared afterwards by the event. And this he did at a time, when his turbulent mob in the city wanted his assistance; whom he would not have left, but for the advantage of that place and season to execute his wicked design. But the next day Milo was in the senate, where he continued till they broke up; then went home; changed his dress; staid there some time till his wife was ready; and afterwards set forward so late, that if Clodius had designed to return to Rome that day, he might have been here by that time. Clodius, prepared for his design, met him on horseback, having no chariot, no equipage, no Greek attendants as usual; and without his wife, which was scarce ever known: whereas Milo was in a chariot with his wife, wrapt up in a cloak, and attended by a large retinue of maid servants, pages, and other persons unfit for an engagement. He met with Clodius before his house, about five o'clock in the evening; and was presently assault-

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ed from an higher ground by many armed men, who killed the coachman. Upon which, Milo, throwing off his cloak, leaped out of the chariot, and bravely defended himself: and those who were with Clodius, having their swords drawn, some made up to the chariot to attack Milo; and others, who now thought he had been killed, began to fall upon his servants, who were behind. And of these, such as had courage, and were faithful to their master, some were killed; and others when they saw the skirmish at the chariot, and could do their master no service (for they heard Clodius himself say that Milo was killed, and really thought it was so), did that, not by their master's order, nor with his knowledge, nor when he was present, which every one would have his own servants to do in the like circumstances. I do not say this to fix any crime upon them, but only to relate what happened." His meaning is, they killed Clodius; which he avoids mentioning, to render what he says less offensive. Can any thing be told in a more plain and simple manner than this? Here is nothing said, but what in itself seems highly probable, and what one would imagine the fact might easily suggest to any ordinary spectator. But in this, both the art and skill of it consist. For in the whole account, as, on the one hand, Milo is so described as to render it highly improbable he could have any design at that time against Clodius; so on the other, no one circumstance is omitted which might seem proper to persuade the hearers that Clodius was the aggressor in that engagement. And yet, if we may believe Asconius, the quarrel was begun by some of Milo's retinue, and Clodius was afterwards killed by his express order. But as things are sometimes best illustrated by their opposites, we shall here produce a contrary instance of a very affected and unnatural way of relating a fact. Val. Maximus tells us of a learned man at Athens, who, by a blow which he received by a stone upon his head, entirely forgot all his learning, though he continued to remember every thing else. And therefore, as he says, since this misfortune deprived him of the greatest enjoyment of his life, it had been happier for him never to have been learned, than afterwards to lose that pleasure. This is the plain sense of the story. But now let us hear him relate it. "A man (says he) of great learning at Athens, having received a blow upon his head by a stone, retained the memory of all other things very perfectly, and only forgot his learning, to which he had chiefly devoted himself. The direful and malignant wound invading his mind, and as it were designedly surveying the knowledge repositied there, cruelly seized on that part of it in particular from which he received the greatest pleasure, and buried the singular learning of the man with an invidious funeral. Who since he was not permitted to enjoy his studies, had better never have obtained access to them, than afterwards to have been deprived of the delight they afforded him." What an unnatural way is this of relating such an accident, to talk of *a wound invading the mind, and surveying the knowledge repositied there, and cruelly seizing a particular part of it, and burying it with an invidious funeral?* There is nothing in the story could lead him to this, but an over-fondness to refine upon it in a very affected manner. But there are two properties of plain thoughts, one of which

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ought constantly to attend them in common with all thoughts, and the other is often necessary to animate and enliven this character.

The former of these is justness and propriety, which is what reason dictates in all cases. What Cicero says of the death of Crassus the orator, seems very just, as well as natural. "It was (says he) an affliction to his friends, a loss to his country, and a concern to all good men; but such public calamities followed upon it, that heaven seemed rather to have favoured him with death, than to have deprived him of life." This thought seems very just, and agreeable to the sentiments of a good man, as Crassus was; to choose death rather than to outlive the happiness of his country, to which he himself had so much contributed. Quintilian has a reflection upon a like occasion, which is not so just and becoming. It is upon the death of his only son, a youth of very uncommon parts, as he represents him; and for whose use he had designed his *Institutions of Oratory*; but he died before they were finished. The passage is this: "I have lost him of whom I had formed the greatest hopes, and in whom I had reposed the greatest comfort of my old age. What can I do now? or of what farther use can I think myself to be, thus disappointed by heaven? What good parent will pardon me, if I can any longer study? and not condemn such resolution, if, thus surviving all my family, I can make any other use of my voice, than to accuse the gods, and declare that providence does not govern the world?" Allowance may be made for the sallies of passion, even in wise men, upon some shocking occasions; but when it proceeds to such a degree as to become impious, it is very indecent, as well as unjust. And all indecency is unnatural, as it is disagreeable to reason, which always directs to a decorum. That seems to be a very natural as well as just thought of Pliny the Younger, when he says, "The death of those persons always appear to me too hasty and unseasonable, who are preparing some lasting work. For persons wholly devoted to pleasures, live, as it were, from day to day, and daily finish the end for which they live; but those who have a view to posterity, and preserve their memory by their labours, always die untimely, because they leave something unfinished." We shall mention but one more instance; and that in a comparative view, to make it the more evident. The two sons of Junius Brutus, the first Roman consul, having been convicted of treason in associating with Tarquin's party, were ordered, among others, to be put to death; and their father not only pronounced the sentence, but presided at the execution. This fact is mentioned by several of the Roman historians; and, as it carries in it not only the appearance of rigorous justice, but likewise of cruelty in Brutus, to have been present at the execution of his sons, they endeavour to vindicate him different ways. What Florus says, seems rather an affectation of wit, than a just defence of the fact. "He beheaded them (says he), that being a public parent, he might appear to have adopted the whole body of the people." Nor does Val Maximus come up to the case, who says, "He put off the father to act the consul; and chose rather to lose the sons, than be wanting to public justice." This might be a reason for condemning them; and would have been equally true, had he not

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^{Elocution.} been present at their execution. But Livy, whose thoughts are generally very just and natural, assigns the best reason which perhaps can be given for his vindication, when he says, "Fortune made him the executioner of the sentence, who ought not to have been a spectator." By saying *fortune made him so*, he represents it not as a matter of choice, like the other historians, but of necessity, from the nature of his office, which then obliged him to see the execution of that sentence he had himself before pronounced; as is the custom at present, in some popular governments.

The other property, which should often accompany plain and simple thoughts, is, that they be gay and sprightly. This, as has been said, is necessary to animate and enliven such discourses as require the low style. The fewer ornaments it admits of, the greater spirit and vivacity is requisite to prevent its being dry and jejune. A thought may be very brisk and lively, and at the same time appear very natural, as the effect of a ready and flowing wit. Such thoughts, attended with agreeable turns, are very suitable to this style; but care should be taken, lest, while fancy is too much indulged, the justness of them be overlooked. We shall give one instance, in which this seems to have been the case, from a celebrated English work, where the ingenious writer endeavours to show the disadvantages of persons not attending to their natural genius, but affecting to imitate others in those things for which they were not formed. "The great misfortune (says he) of this affectation is, that men not only lose a good quality, but also contract a bad one; they not only are unfit for what they are designed, but they assign themselves to what they are unfit for; and instead of making a very good figure one way, make a very ridiculous one another. Could the world be reformed to the obedience of that famed dictate, *Follow nature*, which the oracle of Delphos pronounced to Cicero when he consulted what course of studies he should pursue, we should see almost every man as eminent in his proper sphere as Tully was in his. For my part, I could never consider this preposterous repugnancy to nature any otherwise, than not only as the greatest folly, but also one of the most heinous crimes; since it is a direct opposition to the disposition of providence, and (as Tully expresses it) like the sin of the giants, an actual rebellion against heaven." The advantages that arise from persons attending to their own genius, and pursuing its dictates, are here represented in a very lively and agreeable manner. But there is one thing asserted, which we fear will not hold; which is, that, *Could the world be reformed to that dictate, "Follow nature," we should see almost every man as eminent in his proper sphere as Tully was in his.* For though doubtless persons would generally succeed best if they kept to this rule; yet different degrees of ability are often found, where the bias and inclination is the same, and that accompanied with equal labour and diligence. If this was not so, how happened it that no one came up to Tully in the art of oratory; especially in his own age, when there were the greatest opportunities for that study, and the highest encouragements were given to it, as it paved the way to riches, honours, and all the grand offices of the state? It cannot well be questioned, but that there were other gentlemen, who had all the same ad-

vantages, accompanied with as strong a passion for this art, as Tully had, who yet fell much short of him in point of success. And experience shows, that the case has been the same in all other pursuits.

III. But it is time to proceed to the other head, ¹⁰³ *The language proper for this style.* And here it may be observed in general, that the dress ought to be agreeable to the thoughts, plain, simple, and unaffected. ^{guage proper for this style.}

But the first thing that comes under consideration is elegance, or a proper choice of words and expressions; which ought always to suit the idea they are designed to convey. And therefore when an ancient writer, speaking of *cruelty*, calls it *nævus crudelitatis*, the *blemish of cruelty*; and another, applying the same word to *ingratitude*, says *nævus ingratitudeinis*, the *blemish of ingratitude*; that term does not sufficiently convey to us the odious nature of either of those vices, as indeed it was not their design it should. But otherwise, where the speaker has not some particular view in doing it, to sink too low is as much a fault as to rise too high. So to call ancient Rome *the mistress of Italy*, would as much lessen the just notion of the extent of her power, as the Roman writers aggrandise it when they style her *mistress of the world*. But purity, both in the choice of words and expressions, is never more necessary than it is here. This may be called *neatness in language*. And to be plain and neat at the same time, is not only very consistent, but the former can no other way recommend itself, than as joined with the latter. Besides, the fewer advantages any thing has to set it off, the more carefully they ought to be observed. Perspicuity is always to be regarded; and serves very much to keep up the attention, where other ornaments are wanting. Epithets should be sparingly used, since they enlarge the images of things, and contribute very much to heighten the style. Indeed they are sometimes necessary to set a thing in its just light; and then they should not be dropped. Thus, in speaking of Xerxes, it would be too low and flat to say, *He descended with his army into Greece*. Here is no intimation given of their vast and unparelled numbers, which ought to be done. Herodotus says, his whole army, of sea and land forces, amounted to 2,317,000 and upwards. Therefore, unless the number be mentioned, the least that can be said is, that *he descended with a vast army*.

The next thing to be regarded is composition, which here does not require the greatest accuracy and exactness. A seeming negligence is sometimes a beauty in this style, as it appears more natural. Short sentences, or those of a moderate length, are likewise upon the whole best suited to this character. Long and accurate periods, finely wrought up with a gradual rise, harmonious numbers, a due proportion of the several parts, and a just cadency, are therefore improper, as they are plainly the effect of art. But yet some proportion should be observed in the members, that neither the ears be too much defrauded, nor the sense obscured. Of this kind is that expression of a Greek orator, blamed by Demetrius: *Ceres came readily to our assistance, but Aristides not*. The latter member of this sentence is too short; and by dropping so suddenly, both disappoints the ears, and is somewhat obscure. It would have been plainer and more agreeable

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agreeable thus, but *Aristides did not come*. As to order, the plainest and clearest disposition, both of the words and members of sentences, and what is most agreeable to the natural construction, best suits with this character. For one of its principal beauties is perspicuity. And a proper connection likewise of sentences, with a regular order in the dependence of things one upon another, very much contribute to this end. With regard to the collision of syllables in different words, for preventing either an hollowness or asperity of sound, greater liberty may be taken in this style than in the other characters. Here it may be allowed to say, *Virtue is amiable to all, though all do not pursue it*. But in an higher character, perhaps, in order to prevent the hollow sound of the words *though all*, a person would choose to vary the expression a little, and say, *though few pursue it*. So, *Xerxes' expedition*, may be tolerable here; but in the florid style, *the expedition of Xerxes* would sound much better.

The last thing to be considered, with respect to the language, is dignity, or the use of tropes and figures. And as to tropes, they ought to be used cautiously; unless such as are very common, and by time have either come into the place of proper words, or at least are equally plain and clear. So in the instance mentioned above, Diodorus Siculus, speaking of the forces of Xerxes, calls them an *innumerable company*. Where, by a *synecdoche*, he has chose to make use of an uncertain number for a certain, as less liable perhaps to exception. Other examples might be given if necessary. And with regard to figures, as most of those which consist in words, and are therefore called *verbal figures*, serve chiefly to enliven an expression, and give an agreeable turn, they are often not improper for this character. Nor are figures of sentences wholly to be excluded, especially such as are chiefly used in reasoning or demonstration. But those which are more peculiarly adapted to touch the passions, or paint things in the strongest colours, are the more proper ornaments of the higher styles, as will be shown hereafter.

Upon the whole, therefore, pure nature, without any colouring, or appearance of art, is the distinguishing mark of the low style. The design of it is to make things plain and intelligible, and to set them in an easy light. And therefore the proper subjects of it are epistles, dialogues, philosophical dissertations, or any other discourses, that ought to be treated in a plain and familiar manner, without much ornament, or address to the passions. A freedom and ease both of thought and expression, attended with an agreeable humour and pleasantry, are its peculiar beauties that engage us. As we see persons of fashion and good breeding, though in the plainest habit, have yet something in their air and manner of behaviour that is very taking and amiable. Somewhat of the like nature attends this style. It has its difficulties, which are not so easily discerned but from experience. For it requires no small skill to treat a common subject in such a manner as to make it entertaining. The fewer ornaments it admits of, the greater art is necessary to attain this end. Lofty subjects often engage and captivate the mind by the sublimity of the ideas. And the florid style calls in all the assistance of language

and eloquence. But the plain style is in a great measure stripped of those advantages; and has little more to recommend it, than its own native beauty and simplicity.

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CHAP. VI. *Of the Middle Style.*

THIS we shall treat in the same manner as we did the former, by considering first the *matter*, and then the *language* proper for it. 103

1. And as the subjects proper for this style are things of weight and importance, which require both a gravity and accuracy of expression; so fine thoughts are its distinguishing mark, as plain thoughts are of the low character, and lofty thoughts of the sublime. Now a fine thought may deserve that character from some or other of the following properties. 104

And the first property we shall mention is gravity and dignity. Thus Cicero, in a speech to Cæsar, says, "It has been often told me, that you have frequently said, you have lived long enough for yourself. I believe it, if you either lived, or was born for yourself only." Nothing could either be more fit and proper, than this was, when it was spoken; or at the same time a finer compliment upon Cæsar. For the civil war was now over, and the whole power of the Roman government in the hands of Cæsar; so that he might venture to say, he had lived long enough for himself, there being no higher pitch of glory to which his ambition could aspire. But then there were many things in the state that wanted redressing, after those times of disorder and confusion, which he had not yet been able to effect, and of which Cicero here takes an opportunity to remind him. We shall produce another example from Curtius. Philotas, one of Alexander's captains, having formed a conspiracy against him, was convicted of it, and put to death. Amin-tas, who was suspected of the same crime, by reason of his great intimacy with Philotas, when he comes to make his defence, among other things speaks thus: "I am so far from denying my intimacy with Philotas, that I own I courted his friendship. Do you wonder that we showed a regard to the son of Parmenio, whom you would have to be next to yourself, giving him the preference to all your other friends? You, Sir, if I may be allowed to speak the truth, have brought me into this danger. For to whom else is it owing, that those who endeavoured to please you, addressed themselves to Philotas? By his recommendation we have been raised to this share of your friendship. Such was his interest with you, that we courted his favour, and feared his displeasure. Did we not all in a manner engage ourselves by oath, to have the same friends, and the same enemies, which you had? Should we have refused to take this, which you as it were proposed to us? Therefore, if this be a crime, you have few innocent persons about you; nay, indeed none. For all desired to be the friends of Philotas; though all could not be so who desired it. Therefore, if you make no difference between his friends and accomplices, neither ought you to make any between those who desired to be his friends, and those who really were so." Could any thing be finer spoken, more proper, and becoming the character of a soldier, 105

The middle style considered as to matter and language.

Elocution. *dier*, than this defence; especially to a prince of so great and generous a spirit as Alexander? There is something which appears like this in Tacitus with relation to the emperor Tiberius, but falls vastly short of it in the justness and dignity of the sentiment. Sejanus, his great favourite, and partner in his crimes, falling under his displeasure, was, like Philotas, put to death for a conspiracy. Now a Roman knight, who apprehended himself in danger on account of his friendship with Sejanus, thus apologizes for himself to the emperor, in the manner of Amintas: "It is not for us to examine the merit of a person whom you raise above others, nor your reasons for doing it. The gods have given you the sovereign power of all things, to us the glory of obeying. Let conspiracies formed against the state, or the life of the emperor, be punished; but as to friendships and private regards, the same reason that justifies you, Cæsar, renders us innocent." The turn of the expressions is not much different from that in the case of Amintas; but the beauty of the thought is spoiled by the flattery of complimenting Tiberius upon an excess of power, which he employed to the destruction of many excellent men. There is not that impropriety in the defence of Amintas, which is equally brave and just.

Another property of a fine thought is *beauty* and *elegance*. It is a fine compliment which Pliny pays to the emperor Trajan, when he says, "It has happened to you alone, that you was father of your country, before you was made so." Some of the Roman emperors had been complimented with the title of *father of their country*, who little deserved it. But Trajan had a long time refused it; though he was really so, both by his good government, and in the esteem of his subjects, before he thought fit to accept of it. And Pliny, among other instances of the generosity of that prince, which he mentions in the same discourse, speaking of the liberty that he gave the Romans to purchase estates which had belonged to the emperors, and the peaceable possession they had of them, does it by a turn of thought no less beautiful than the former. "Such (says he) is the prince's bounty, such the security of the times, that he thinks us worthy to enjoy what has been possessed by emperors; and we are not afraid to be thought so." There is a sprightliness in this image, which gives it a beauty; as there is likewise in the following passage of the same discourse, where he says to Trajan, "Your life is displeasing to you, if it be not joined with the public safety; and you suffer us to wish you nothing but what is for the good of those who wish it." And of the same kind is that of Cicero to Cæsar, when he says, "You, Cæsar, are wont to forget nothing but injuries." It is a very handsome, as well as just reflection, made by Tacitus upon Galba's government, that, "He seemed too great for a private man, while he was but a private man; and all would have thought him worthy of the empire, had he never been emperor." The beauty of a thought may give us delight, though the subject be sorrowful; and the images of things in themselves unpleasant may be so represented as to become agreeable. Sifigambis, the mother of Darius, after the death of her son, had been treated by Alexander

with the greatest regard and tenderness, in whose power she then was. So soon as she heard therefore that he was dead, she grew weary of life, and could not bear to outlive him. Upon which Q. Curtius makes this fine reflection: "Though she had courage to survive Darius, yet she was ashamed to outlive Alexander."

The next property of a fine thought, which we shall mention, is *delicacy*. As, in the objects of our senses, those things are said to be delicate which affect us gradually in a soft and agreeable manner; so a delicate thought is that which is not wholly discovered at once, but by degrees opening and unfolding itself to the mind, discloses more than was at first perceived. Quintilian seems to refer to this, when he says, "Those things are grateful to the hearers, which when they apprehend, they are delighted with their own sagacity; and please themselves, as though they had not heard, but discovered them." Such thoughts are not unlike the sketches of some pictures, which let us into the design of the artist, and help us to discern more than the lines themselves express. Of this kind is that of Sallust: "In the greatest fortunes, there is the least liberty." This is not often so in fact, but ought to be; both to guard against an abuse of power, and to prevent the effects of a bad example to inferiors. Pliny, speaking of the emperor Trajan's entry into Rome, says, "Some declared, upon seeing you, they had lived long enough; others, that now they were more desirous to live." The compliment is fine either way, since both must esteem the sight of him the greatest happiness in life; and in that consistency lies the delicacy of the thought. It was a fine character given of Grotius, when very young, on the account of his surprising genius and uncommon proficiency in learning, that *he was born a man*: As if nature, at his coming into the world, had at once furnished him with those endowments which others gradually acquire by study and application.

The last property of a fine thought, which we shall take notice of, is *novelty*. Mankind is naturally pleased with new things; and when at the same time they are set in an agreeable light, this very much heightens the pleasure. Indeed there are few subjects, but what have been so often considered, that it is not to be expected they should afford many thoughts entirely new; but the same thought set in a different light, or applied to a different occasion, has in some degree a claim of novelty. And even where a thing hath been so well said already, that it cannot easily be mended, the revival of a fine thought often affords a pleasure and entertainment to the mind, though it can have no longer the claim of novelty. Cicero, in his treatise of an orator, among several other encomiums which he there gives to Crassus, says of him, "Crassus always excelled every other person, but that day he excelled himself." He means as an orator. But elsewhere he applies the same thought to Cæsar, upon another account; and with some addition to it. "You had (says he) before conquered all other conquerors by your equity and clemency, but to-day you have conquered yourself; you seem to have vanquished even victory herself, therefore you alone are truly invincible." This thought, with a little variation of the

Elocution. phrase, has since appeared in several later writers; and it is now grown common to say of a person, who excels in any way, upon his doing better than he did before, that he has outdone himself. The like has happened to another thought, which, with a little alteration, has been variously applied. It was said by Varro, *That if the Muses were to talk Latin, they would talk like Plautus.* The younger Pliny, applying this compliment to a friend of his, says, *His letters are so finely written, that you would think the Muses themselves talked Latin.* And Cicero tells us, *It was said of Xenophon, that the Muses themselves seemed to speak Greek with his voice.* And elsewhere, that *Philosophers say, if Jupiter speaks Greek, he must speak like Plato.* The thought is much the same in all these instances, and has been since revived by some modern writers.

105
The language of the middle style.

II. We shall now consider the *language* proper for the middle style. And in general it may be observed, that as the proper subjects of it are things of weight and importance, though not of that exalted nature as wholly to captivate the mind and divert it from attending to the diction; so all the ornaments of speech, and beauties of eloquence, have place here.

And first with regard to elegance, it is plain that a different choice of words makes a very great difference in the style, where the sense is the same. Sometimes one single word adds a grace and weight to an expression, which, if removed, the sense becomes flat and lifeless. Now such words as are most full and expressive suit best with his character. Epithets also, which are proper and well chosen, serve very much to beautify and enliven it, as they enlarge the ideas of things, and set them in a fuller light.

The most accurate composition, in all the parts of it, has place here. Periods, the most beautiful and harmonious, of a due length, and wrought up with the most exact order, just cadency, easy and smooth connection of the words, and flowing numbers, are the genuine ornaments, which greatly contribute to form this character.

But the principal distinction of style arises from tropes and figures. By these it is chiefly animated and raised to its different degrees or characters, as it receives a lesser or greater number of them; and those either more mild, or strong and powerful.

As to tropes, those which afford the most lively and pleasing ideas, especially metaphors, suit the middle character. It is a pretty remark, which has been made by some critics upon two verses of Virgil; one in his *Eclogues*, and the other in his *Georgics*. The former of these works is for the most part written in the low style, as the language of shepherds ought to be; but the latter in the middle style, suitable to the nature of the subject, and the persons for whom it was designed, the greatest men in Rome not thinking it below them to entertain themselves with rural affairs. Now in the *Eclogue*, as some copies read the verse, the shepherd, complaining of the barrenness of his land, says,

Infelix lolium et steriles nascuntur avenae.

In English thus:

Wild oats and darnel grow instead of corn.

But in the *Georgic*, where the same sense is intended, instead of the proper word *nascuntur*, grow, the author substitutes a metaphor, *dominantur*, command, and says,

Infelix lolium et steriles dominantur avenae.

That is in English:

Where corn is sown, darnel and oats command.

It was fit and natural for the shepherd to express his sense in the plainest terms; and it would have been wrong to represent him going so far out of his way, as to fetch a metaphor from government, in talking upon his own affairs. But in the *Georgic*, where the poet speaks in his own person, the metaphor is much more beautiful, and agreeable to the dignity of the work. This instance may show in some measure how the style is heightened by tropes, and the same thought may be accommodated to the several characters of style by the different manner of expression.

The like may also be said of figures either of words or sentences, in reference to this character; which admits of the finest descriptions, most lively images, and brightest figures, that serve either for delight, or to influence the passions without transport or ecstasy, which is the property of the sublime. This is indeed the proper seat of such embellishments, which support and make up a principal part of the middle or florid style. Having treated largely upon these in several preceding chapters, we shall here only briefly mention some of the most considerable.

Descriptions are not only a great ornament to a discourse, but represent things in a very lively and agreeable manner. In what a beautiful light has Cicero placed the polite arts and sciences, when, describing them from their effects, he thus represents to us the great advantages, as well as pleasure, which they afford to the mind? "Other studies neither suit with all times, nor all ages, nor all places: but these improve youth, delight old age, adorn prosperity, afford a refuge and solace in adversity; please at home, are no hinderance abroad; sleep, travel, and retire with us." And they often affect us very powerfully, when they are addressed to the senses. Quintilian has painted the calamities of a city taken by storm in the brightest and strongest colours, which he represents by "Flames spreading themselves over the houses and temples, the cracking of falling buildings, and a confused noise from a variety of cries and shouts; some running they know not where, others in the last embraces of their friends, the shrieks of children, women, and old men unhappily reserved to such distress; the plundering of all places civil and sacred, the hurry and confusion in carrying off the booty, captives driven before their victors, mothers endeavouring to guard their infants, and quarrels among the conquerors where the plunder is largest." This seems to be a very natural, as well as moving, image of so dreadful a calamity.

106
Descriptions ornamental and pleasant.

Prosopopeia is another very strong and beautiful figure, very proper for this character. Seneca has a fine instance of it in his *Consolatory letter to Marcia*, upon the death of her son. After many arguments he had made use of to alleviate her grief, he at last introduces her father, Crematius Cordus, as thus addressing

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Prosopopeia well fitted for this character.

Elocution dressing to her: "Imagine your father (says he) from the celestial regions, speaking to you in this manner: Daughter, why do you so long indulge your grief? why are you so ignorant, as to think it unhappy for your son, that, weary of life, he has withdrawn himself to his ancestors? Are you not sensible what disorders fortune occasions everywhere? and that she is kindest to those who have least concern with her? Need I mention to you princes who had been extremely happy, had a more timely death secured them from impending evils? or Roman generals, who wanted nothing to consummate their glory, but that they lived too long? Why then is he bewailed longest in our family who died most happily? There is nothing, as you imagine, desirable among you, nothing great, nothing noble; but, on the contrary, all things are mean, full of trouble and anxiety, and partake very little of the light which we enjoy." This advice was very suitable for a philosopher; and he seems to have chosen this way of introducing it, to enforce the argument drawn from the happiness of good men in a future state, from the testimony of a person who was actually in the possession of it.

108
Similitudes
both ornamental and frequent here.

Similitudes and comparisons are another great ornament of this style, and oftenest found here. Nothing can be finer than the comparison between those two great orators, Demosthenes and Cicero, made by Quintilian, when he says, "Demosthenes and Cicero differ in their elocution; one is more close, and the other more copious; the former concludes more concisely, and the latter takes a larger compass; the one always with pungency, and the other generally with weight; one can have nothing taken from him, and the other nothing added to him; the latter has more of art, and the former more of nature. But this must be allowed to Demosthenes, that he made Cicero in a great measure what he was. For as Tully gave himself wholly to an imitation of the Greeks, he seems to me to have expressed the force of Demosthenes, the fluency of Plato, and the pleasantry of Isocrates." Similitudes, taken from natural things, serve very much to enliven the style, and give it a cheerfulness; which is a thing so common and well known, that we need not stay to give any instances of it.

109
Antithesis
has also a fine effect.

Antithesis, or opposition, both in the words and sense, has often the like beautiful effect. There is an agreeable contrast in that passage of Seneca: "Cæsar does not allow himself many things, because he can do all things: his watching defends all others sleep, his labour their quiet, his industry their pleasure, his business their ease; since he has governed the world, he has deprived himself of it." Had he said no more than only in general, that *Cæsar does not allow himself many things, because he can do all things*, it might have passed for a fine thought; but, by adding so many particulars, all in the same form of expression, and beginning each member with the same word, he has both enlarged the idea, and beautified the antithesis, by a bright verbal figure.

These, and such like florid figures, are sometimes found in historians, but oftener in orators; and indeed this middle character, in the whole of it, is best accommodated to the subjects of history and oratory.

THE *sublime* is the most noble, as well as the most difficult, part of an orator's province. It is this principally which Cicero requires in his perfect orator, whom he could not describe in words, but only conceive of in his mind. And indeed, the noblest genius and greatest art are both requisite to form this character. For where nature has been most liberal in furnishing the mind with lofty thoughts, bright images, and strong expressions; yet without the assistance of art there will sometimes be found a mixture of what is low, improper, or misplaced. And a great genius, like a too rich soil, must produce flowers and weeds promiscuously, without cultivation. But the justest propriety, joined with the greatest strength and highest elevation of thought, are required to complete the true sublime. Art therefore is necessary to regulate and perfect the taste of those who are desirous to excel in this character.

In explaining the nature and properties of this character, we shall, as in the two former, consider first the *thoughts*, and then the *language*, in each of which it is distinguished from them.

§ 1. *Sublime, as it relates to Thoughts.*

LOFTY and grand sentiments are the basis and foundation of the true sublime. Longinus therefore advises those who aspire at this excellence, to accustom themselves to think upon the noblest subjects. A mind that always dwells upon low and common subjects, can never raise itself sufficiently to represent things great and magnificent in their full extent and proper light. But he who inures himself to conceive the highest and most exalted ideas, and renders them familiar to his thoughts, will not often be at a loss how to express them; for where proper words are wanting, by metaphors and images taken from other things he will be able to convey them in a just and adequate manner. What is more common than for two persons to conceive very differently of the same thing from the different manner of thinking to which they have been accustomed? After the great battle in Cilicia, between Alexander and Darius, in which the latter was routed, he sent ambassadors to Alexander with proposals of peace, offering him half his kingdom with his daughter in marriage. Parmenio, one of Alexander's chief captains, says to him upon this occasion, "For my part, was I Alexander, I would accept of these conditions." And so would I (replies that aspiring monarch), was I Parmenio." The half of so vast a kingdom at present, and a right of succession to the whole by marriage, was the highest ambition to which the thoughts of Parmenio could rise. But Alexander had vastly higher views; he aimed at nothing less than universal monarchy; and therefore such a proposal seemed much beneath his regard. Noble and lofty thoughts are principally those which either relate to divine objects, or such things as among men are generally esteemed the greatest and most illustrious.

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Sublimity
as it relates to thoughts.

Of the former sort is that of Homer, when describing the goddess Discord, he says, that she

Walks on the ground, and hides her head in clouds.

This

Elocution. This stretch of thought, says Longinus, 'as great as the distance between heaven and earth, does not more represent the stature of the goddess, than the measure of the poet's genius and capacity. But such images, however beautiful in poetry, are not so proper for an orator, whose business it is to make choice of those which are suited to the nature of things and the common reason of mankind. When Numa the second king of Rome was settled in his government, and at peace with his neighbours, in order to soften the fierce and martial temper of his subjects, who had been always accustomed to wars during the reign of his predecessor Romulus, he endeavoured to impress their minds with an awe of the Deity; and for that end introduced a number of religious ceremonies, which he pretended to have received from the goddess Egeria*.' This must be esteemed an artful piece of policy at that time. But that sentiment is far more just and noble, with which Cicero endeavours to inspire the members of a community, in his treatise Of Laws, when he says, that "Citizens ought first to be persuaded, that all things are under the rule and government of the gods; that every affair is directed by their wisdom and power; that the highest regard is due to them from men, since they observe every one's conduct, how he acts and behaves himself, and with what temper and devotion he worships them; and that they make a difference between the pious and impious." Persons under the influence of such a persuasion, could not fail of behaving well in society. And what he says to Cæsar is no less in this style, when, interceding for Ligarius, he tells him, that "men in nothing approach nearer to deity, than in giving life to men." And Velleius Paterculus, speaking of Cato, gives him this sublime character, "That he was more like the gods than men; who never did a good thing, that he might seem to do it."

* See E-
GERIA.

The other kind of lofty thoughts mentioned above, are those which relate to power, wisdom, courage, beneficence, and such other things as are of the highest esteem among mankind. "Your fortune (says Tully to Cæsar) has nothing greater than a power, nor your nature than a will, to save many." He subjoins this compliment to what we just now cited from him; and applies that to Cæsar, which was before only expressed in general, leaving him to draw the inference of his similitude to deity from the clemency of his nature. And elsewhere, as in a sort of transport for his success in defeating the conspiracy of Catiline, he thus bespeaks the Roman senate: "You have always decreed public thanks to others for their good government of the state, but to me alone for its preservation. Let that Scipio shine, by whose conduct and valour Hannibal was forced to leave Italy, and retire to Africa; let the other Scipio be greatly honoured, who destroyed Carthage and Numantia, two cities the most dangerous to this empire; let Lucius Paulus be in high esteem, whose triumphal chariot was adorned with Perseus, once a most powerful and noble prince; let Marius be in eternal honour, who twice delivered Italy from an invasion and the dread of servitude; let Pompey's name excel all these, whose actions and virtues are terminated by no other bounds but the course of the sun:—yet, among all their praises, there will still

Elocution. some place be left for my glory; unless indeed it be a greater thing to open for us new provinces to which we may resort, than to secure a place for our victorious generals to return in triumph." And Velleius Paterculus, as if he thought no encomium too high for this great orator, laments his unhappy fate in these lofty strains, addressed to M. Antony, by whose order he was put to death: "You have taken from Cicero old age, and a life more miserable than death under your government; but his fame, and the glory of his actions and words, you have been so far from destroying, that you have increased them. He lives, and will live in the memory of all ages; and while this system of nature, however constituted, shall remain (which scarce any Roman but himself conceived in his mind, comprehended by his genius, and illustrated with his eloquence), the praise of Cicero shall accompany it; and all posterity, while it admires his writings against you, will curse your treatment of him; and sooner shall mankind be lost to the world than his name." It was a noble reply of Porus the Indian king, when, after his defeat by Alexander, being brought before him, and asked, *How he expected to be treated?* he answered, *Like a king.* And Valerius Maximus, speaking of Pompey's treatment of Tigranes king of Armenia after he had vanquished him, expresses it in a manner suited to the dignity and beneficence of the action, when he says, "He restored him to his former fortune, esteeming it as glorious to make kings as to conquer them."

But the true sublime is consistent with the greatest plainness and simplicity of expression. And, generally speaking, the more plain and natural the images appear, the more they surprise us. How succinct, and yet how majestic, is that expression of Cæsar upon his victory over Pharnaces? *I came, I saw, I conquered.* But there cannot be a greater or more beautiful example of this, than what Longinus has taken notice of from Moses. "The legislator of the Jews (says he), no ordinary person, having a just notion of the power and majesty of the Deity, has expressed it in the beginning of his laws in the following words: *And God said—what? Let there be light; and there was light. Let the earth be made; and it was made.*" This instance from the divine writer, and the character here given of him by that excellent critic, is the more remarkable, as he was himself a Pagan. And certainly no laboured description could raise in the mind an higher conception of the infinite power of the Deity, than this plain and short narration. To command nature itself into being by a *word*, represents it at once altogether boundless and unlimited.

It sometimes very much contributes to heighten the image of a thing, when it is expressed in so undetermined a manner, as to leave the mind in suspense what bounds to fix to the thought. Of this kind is that of Cicero, when he first raises an objection against the necessity of an acquaintance with polite literature in order to form a great man, and then answers it. The objection is founded upon the examples of several great and excellent persons among the Romans, who had raised themselves to the highest pitch of honour and dignity, and been very serviceable to their country, by the help of a good genius, without the advantage

Elocution. tage of much learning. In reply to which, he allows, that, where these are not united, nature or genius is of itself much preferable, and will carry a person further in the pursuit of great and noble designs, than learning without a genius; but that both are necessary to complete and perfect a truly great man. But we shall give what he says himself on this head, by which that property of a sublime thought we are now endeavouring to explain, will appear from his manner of expression: "I acknowledge (says he) that many persons of an exalted mind and virtue have, from a divine temper, without instruction, become moderate and grave; and I add likewise, that nature, without the assistance of learning, has frequently more contributed to honour and virtue, than learning where a genius has been wanting: But yet I must say, that where the direction and improvement of learning is added to a great and excellent genius, it is wont to produce something admirable and singular, which I know not how to describe." He knew very well, that, by leaving the minds of his hearers thus in suspense, they would form to themselves higher conceptions of what he intended, than from any idea he could convey to them in words. We may add to this another example from the same great orator, where he says, "Truly, if the mind had no views to posterity, and all its thoughts were terminated by those bounds in which the space of life is confined, it would neither fatigue itself with so great labours, nor be disquieted with so many cares and watchings, nor so often expose itself to death. But there is a certain active principle in every good man, which constantly excites his mind by motives of glory; and reminds him, that the remembrance of his name is not to end with his life, but extend itself to all posterity." Of the like nature is that of Milton, when he describes Satan as flying from hell in quest of our earth, then newly formed. For, having represented that his wings failed him in the vast vacuity, he thus describes his fall:

Down he drops
Ten thousand fathom deep; and to this hour
Down had been falling, had not by ill chance
The strong rebuff of some tumultuous cloud,
Instinct with fire and nitre, hurried him
As many miles aloft.

Those words, by which his fall is expressed,

And to this hour
Down had been falling,

leave the mind in suspense, and unable to fix any bounds to the vacuity; and by that means raise a greater and more surprising idea of its space than any direct expression could have done. This image is very beautiful where it stands; but so much out of the common way of thinking, as to suit better with an epic poem than the discourse of an orator.

§ 2. *The Sublime, with regard to Language.*

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Sublimity
as to lan-
guage.

WHAT we have to offer upon this subject will come under the three heads of *Elegance*, *Composition*, and *Dignity*; which comprehend all the properties of style.

113 I. *Elegance.* Those words and expressions chiefly contribute to form the sublime, which are most sono-

Elocution. rous, and have the greatest splendor, force, and dignity. And they are principally such as these. Long words, when equally expressive, are rather to be chosen than short ones, and especially monosyllables. So to conquer or vanquish an enemy, carries in it a fuller and more grand sound, than to beat an enemy. For which reason, likewise, compound words are often preferable to simple ones. So if we say, *Cæsar's army, when he was present, was always invincible*; this manner of expression has more of sublimity in it, than should we say, *Cæsar's army, when he was present, could never be conquered*. But the ancient languages have much the advantage of ours in both these respects; for their words are generally longer, and they are abundantly more happy in their compositions. The use of proper epithets does also in a particular manner contribute to this character. For as they denote the qualities and modes of things, they are as it were short descriptions; so that being joined to their subjects, they often greatly enlarge and heighten their image. Thus when the character of *divine poet* is given to Homer or Virgil, or *prince of orators* to Demosthenes or Cicero; it conveys to the mind a more sublime idea of them, than the bare mention of their name.

114 II. *Composition*: The force of which, as Longinus observes, is so great, that sometimes it creates a kind of sublime where the thoughts themselves are but mean, and gives a certain appearance of grandeur to that which otherwise would seem but common. But composition consists of several parts; the first of which, in the order we have hitherto considered them, is *period*. And here the case is much the same as with animal bodies, which owe their chief excellency to the union and just proportion of their parts. The several members, when separate from each other, lose both that beauty and force, which they have when joined together in a complete body. In like manner, sublimity arises from the several parts of a period so connected, as to give force, as well as beauty, to the whole. The periods therefore in this character should be of a proper length. If they are too short, they lose their just weight and grandeur, and are gone almost before they reach the ear; as on the contrary, when they are too prolix, they become heavy and unwieldy, and by that means lose their force. But more especially, nothing superfluous ought to be admitted, which very much enervates the force of a sentence. We shall exemplify this in a passage from Herodotus, where he is giving an account of the famous battle at Thermopylæ between the Persians and Lacedæmonians. "Dieneces (says he) the Spartan, being told by a Trachinian, before the engagement with the Medes, that when the barbarians came to shoot their arrows, they would fly so thick as to obscure the light of the sun; he was so far from being terrified at this, that despising their number, he replied, he "was pleased with what his friend told him, since if the sun was obscured, they should fight in the shade, and not in the sun." The sense here is great and noble, but the sublimity of expression is spoiled in a great measure by those last words, *and not in the sun*, which are wholly superfluous. Cicero was sensible of this, and therefore he omits that member in relating the same story, and says only: "A Spartan, hearing that one of the Persians should say in an insulting manner, that when they

Elocution. they came to engage, they should not be able to see the sun, for the multitude of their darts and arrows, replies, "Then we shall fight in the shade." By stopping here, he gives the sentence much more life and emphasis. The next thing to be considered in composition, is the order and disposition of the several words and members of a sentence. The different placing but of one or two words will sometimes wholly destroy the grandeur of a sentence, and make it extremely flat. "This public act (says Demosthenes) dispelled the danger which at that time, like a cloud, hung over the city." Let us vary the order a little, and read it thus: "This public act dispelled the danger, which like a cloud hung over the city at that time." What a different turn does the expression receive for the worse! The spirit and majesty of it are entirely lost. And in placing the several parts or members, they ought to be so disposed, that what is most weighty and important should stand last. So Tully says of Catiline, "We ought to return thanks to heaven, that we have so often escaped so odious, so frightful, so dangerous a plague of the state." A thing may be odious and frightful, and yet not dangerous; therefore he puts this in the last place, to give it the greater force, and make the deeper impression. Another thing to be attended to in composition, is the connection of the words with regard to the sound; that the pronunciation, in passing from one to another, may be most agreeable to the ear, and best suited to the nature of the subject. And as this is generally something grand and magnificent, such a contexture of them as will give the greatest force and energy to the expression is most proper for the sublime. Soft and languid sounds are very unsuitable to this character. They soothe and please the ear; but rather sink and depress the mind, than excite it to things great and noble. In this respect, therefore, our tongue, by its multitude of consonants, is more suitable for sublime discourses than some other modern languages, which abound with vowels.

III. The last head to be considered, is the proper use of tropes and figures; which is here so necessary, that the title of *dignity* seems to have been given to this part of elocution, from the assistance it more especially affords to this character. For if, as has been observed from Longinus, compositions will sometimes create a sort of sublimity; this much oftener happens from the force and efficacy of some lively tropes and strong figures.

And as to *tropes*, bright metaphors are peculiarly suited to raise and animate the style. This is manifest from the nature of them, as they consist of contracted similes, reduced to a single word; which, if taken from things lofty and grand, must of consequence give a sublimity to the style. What can suggest to us a greater idea of the valour of Ajax, than Homer's calling him *the bulwark of the Greeks*; or of the Scipios, than when they are styled by Virgil, *the two thunderbolts of war*. A number of those, well chosen, contribute no less to the grandeur than to the beauty of discourse. Hyperbole sometimes gives the same force to an expression, if cautiously used, and so as not to exceed all appearance of truth. But the chief use of it is, where proper words will not express the just idea of the thing designed to be conveyed;

N^o 252.

Elocution. and it may seem rather the offspring of necessity than choice. Of this nature is that of Herodotus, when speaking of the Lacedemonians at Thermopylae, he says, "They defended themselves with the swords they had left, and even with their hands and teeth, till the barbarians buried them under their arrows." It cannot be supposed strictly true, that so many arrows were thrown at them as to bury them; but having in the former part of the sentence represented their resolute defence in the strongest terms, by saying, that, naked and without arms, they engaged armed men with their hands and teeth, the following hyperbole seems not unnatural, and to intimate nothing more than what was necessary to quell such obstinate resolution and courage.

As to *figures*, whether verbal or those which consist in the sense, the nature of this character will easily direct to such as are most proper. But with respect to the latter, poets take greater liberties in the use of them than would be allowed in an orator. As their images are often formed for pleasure and delight, so they carry in them more of rapture and transport. But the orator's use of them being to set things in a stronger and clearer light, they are more sedate and moderate. Besides, an orator scarce ever has occasion for such fictitious images as we often meet with in poetry; though his ought to appear as natural, and its painting as strong and lively. We shall just mention some of the chief of those figures which seem best suited for this purpose; though they are no less suited to the middle style, as has been shown already, when taken from subjects of an inferior nature.

1. *Description.* Of this Justin gives us a fine instance, in a speech of king Philip the fifth of Macedon, wherein he represents the necessity of falling upon the Romans, who at that time were engaged in a war with Hannibal. "I behold (says he) a cloud of a most dreadful and bloody war rising in Italy. I see a storm of thunder and lightning from the west, which will overspread all places with a vast shower of blood, into whatever country the tempest of victory shall drive it. Greece has undergone many violent shocks in the Persian, Gallic, and Macedonian wars; but these would all be found unworthy of regard, if the armies now engaged in Italy should march out of that country. I view the terrible and cruel wars which involve those nations through the courage of their forces, and skill of their generals. This rage and fury cannot cease by the destruction of one party, without the ruin of their neighbours. Indeed, Macedon has less reason to dread the savage conquerors than Greece; because more prepared, and better able to defend itself; but I am sensible, those who attack each other so impetuously will not confine their victories within those bounds, and that it will be our lot to engage the conquerors." So lively a picture of imminent and threatening danger must needs alarm the most timorous, and excite them to a resolution to defend their country, and all that was dear to them. Such images give life and vigour to a discourse, and being artfully interwoven with proper arguments, influence the mind, and carry it away by an irresistible force, so that the hearer is not barely left to conclude the certainty of the thing, but moved by it, as it were, from ocular demonstration. The images therefore

Elocution. fore of the orator ought to be drawn from real things, or at least such as are probable; for if they are wholly fictitious and incredible, as many poetical images are, they may give pleasure, but will not convince the mind, nor sway the passions.

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2. *Enumeration* has some affinity with the former figure; by which, if the several parts have each something grand in them, the whole, when brought together, and disposed in a just order, very much contributes to the sublimity. We shall produce an example of this from an English writer, containing a description of our globe, upon a survey of it after the general conflagration, which he represents in this strong light: "Such is the vanity and transient glory of this habitable world! By the force of one element breaking loose upon the rest, all the varieties of nature, all the works of art, all the labours of man, are reduced to nothing; all that we admired and loved before, as great and magnificent, is obliterated and vanished, and another form and face of things, plain, simple, and everywhere the same, overspreads the whole earth. Where are now the great empires of the world, and their great imperial cities? their pillars, trophies, and monuments of glory? Show me where they stood, read the inscription, tell me the victor's name. What remains, what impressions, what difference or distinction, do you see in this mass of fire? Rome itself, eternal Rome, the great city, the empress of the world, whose domination or superstition, ancient or modern, make a great part of the history of the earth, what is become of her now? She laid her foundations deep, and her palaces were strong and sumptuous; *she glorified herself, and lived deliciously, and said in her heart I sit a queen, and shall see no sorrow*: but her hour is come, she is wiped away from the face of the earth, and buried in everlasting oblivion. But it is not cities only, and the works of mens hands; the everlasting hills, the mountains and rocks of the earth, are melted as wax before the sun, *and their place is nowhere found*. Here stood the Alps, the load of the earth, that covered many countries, and reached their arms from the ocean to the Black sea. This huge mass of stone is softened and dissolved, as a tender cloud into rain. Here stood the African mountains, and Atlas with his top above the clouds. There was frozen Caucasus, and Taurus, and Imaus, and the mountains of Asia; and yonder, towards the north, stood the Riphean hills, clothed in ice and snow; all these are vanished, dropped away, as the snow upon their heads*." These particulars considered separately are all truly great and noble, and every way suited to the nature of the subject; but as they are here disposed, and rise in order, they both enlarge the idea, and heighten the image, of that grand catastrophe.

* Burnet's
Theory.

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3. *Similitude*: Which serves very much for beauty and ornament; and, when taken from great and sublime objects, adds a grandeur and magnificence to the things illustrated by it. We need go no farther for an example of this, than to the great critic so often mentioned already, who has treated upon the sublime in a style every way equal to the subject. He, then, comparing those two great works of Homer, his *Iliad* and *Odyssey*, thus describes them: "Homer composed

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Elocution. his *Iliad* when his mind was in its full strength and vigour; the whole body of the poem is dramatic, and full of action: whereas the best part of the *Odyssey* is taken up in narrations, which seem to be the genius of old age. So that one may compare him in this latter work to the setting sun, which still appears with the same magnificence, but has no longer the same heat and force." And soon after, speaking of the *Odyssey*, he says, "That piece may be called the reflux of his genius, which like the ocean ebbs, and deserts its shores." What nobler idea could possibly have been given of that great poet, than by those two similitudes of the sun and the ocean? And elsewhere, comparing those two great orators Demosthenes and Cicero, he shows the like sublimity of thought. "Demosthenes (says he) is sublime, in that he is close and concise; Cicero, in that he is diffused and extensive. The former, by reason of the violence, rapidity, strength, and fury, with which he rages and bears all before him, may be compared to a tempest and thunder; but the latter, like a great conflagration, devours and consumes all he meets, with a fire that is never extinguished, but wherever it advances continually gathers new strength."

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4. *Antithesis*, or a sentence consisting of opposite parts, has often the same effect; as in the following instance of Cicero, where his view is to represent Pompey as a most consummate general. "Who," says he, "ever was, or need be more knowing, than this man? who from his childhood, and instruction at school, went into the army of his father, and learned the military art, in a very great war against the fiercest enemies: who, while yet a boy, became a foldier under the greatest general; and when but a youth was himself commander of a very great army: who has oftener engaged with the enemy in battle, than any other person with his adversary in private contests; has waged more wars than others have read, and conquered more provinces than others have wished to govern: whose youth has been spent in acquiring the art of war, not by the precepts of others, but his own commands; not by defeats, but victories; not by campaigns, but triumphs."

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5. *Apostrophe*. Among the articles charged against Demosthenes by his great adversary and rival Æschines, one was, that he had advised the Athenians to engage in a war against king Philip, wherein they had received a very great defeat. When Demosthenes comes to answer that part of the charge, he does not say as he might, "You have not been misled, my fellow citizens, in exposing your lives for the liberties and safety of Greece; you are not without the most illustrious examples of such conduct: for who can say these great men were misled, who fought for the same cause in the plains of Marathon?" But instead of expressing himself thus, he gives the matter quite a different turn; and in a sort of rapture, appealing to those brave defenders of their country, says, "No, my fellow-citizens, you have not done wrong, you have not; I protest by the ghosts of those great men who fought for the same cause in the plains of Marathon." By this appeal to those ancient worthies whose memories were in the highest esteem at Athens, that it was the cause, and not the success, which rendered their actions

3 M

fo

Elocution

so glorious, he artfully corroborates his assertion in a way which he knew must have the greatest weight with his audience.

As the proper subjects of this character are either divine things, or such as are in the highest esteem and regard among mankind, which often require laudatory discourses, or panegyric; these naturally admit of all the ornaments and assistance of eloquence. Which, however, must be used with discretion: for when the mind is wrapt up in thought, and stretched to the utmost of its powers in the pursuit of some noble and sublime idea, it cannot attend to all the lesser fineries and niceties of language; but from its own vigour, and lively conception of things, will be led to express them in terms the most emphatical, and best suited to their nature. In such cases, therefore, the sublimity must appear rather from the elevation of the thought, attended with a simplicity of expression, than from the ornaments and dress of the language. These things seem more natural when the mind is relaxed, and employed upon lower objects. Though, upon the whole, grandeur and majesty of expression is the proper mark of this character with relation to the language, as beauty and splendor is of the middle style.

CHAP. VIII. *Of the Style of an Orator.*

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The low, middle, and sublime style requisite for an orator.

THE style of an orator comprehends all the characters already explained, of *low*, *middle*, and *sublime*, as they are applied by him in the different parts of his province. For that the language must be suited to the nature of the subject, we have had occasion often to observe already; and the different view of the speaker or writer necessarily occasions a variety in the manner of expression. Now an orator has three things in his view; to prove what he asserts, to represent it in an agreeable light, and to move the passions. These are all necessary, we do not mean in the order wherein we have now mentioned them, but that the discourse may upon the whole have its desired effect upon the audience. For unless the mind be convinced of the truth of what is offered by solid and cogent arguments, neither will the most eloquent discourse afford a lasting pleasure, nor the most pathetic long influence the affections. Though, on the other hand, the hearers expect to be entertained at the same time they are informed; and therefore, unless the language be agreeable to their taste, they will soon call off their attention, and think but meanly of the speaker. And unless both these are warmed and animated by a becoming pathos, the speaker may very probably miss of his end in bringing his audience over to his sentiments. For bare conviction is not sufficient with many persons to excite them to action. They will acquiesce in the truth of a thing which they cannot contradict, or will not give themselves the trouble to examine; and at the same time remain unconcerned to prosecute it. And the pleasure of a florid discourse will of itself soon vanish, like the harmony of music, or the charms of a fine poem. And therefore to captivate his audience, secure them in his interest, and push them upon action, it is necessary for the orator to engage their affections; these are, as it were, the springs of the soul, which, managed

by a skilful hand, move and direct it at pleasure. Elocution. Now each of these parts of an orator's province requires a different style. The *low style* is most proper for proof and information; because he has no other view here but to represent things to the mind in the plainest light, as they really are in themselves, without colouring or ornament. The *middle style* is most suited for pleasure and entertainment, because it consists of smooth and well-turned periods, harmonious numbers, with florid and bright figures. But the *sublime* is necessary in order to sway and influence the passions. Here the orator calls in all the assistance both of nature and art; the most raised and lofty thoughts, clothed with the brightest and strongest colouring, enter into this character.

But as an orator has frequently each of these views in the same discourse, we shall first give a summary description of the several characters of style, which we have formerly discoursed on more at large; that, by placing them together in one view, the difference between them may be more plain and obvious: and then we shall proceed to show to what particular parts of a discourse each of them is more especially to be applied.

I. First, then, as shorter periods are proper in the *low style*, so less care is necessary in their turn and cadency. If a sentence now and then drop unexpectedly, and disappoint the ear, or has something rough and harsh in its composition, it is no blemish in this character. For as it is suited to the manner of common discourse, an appearance of regard to the subject, rather than the form of expression, is more becoming than any beauties of art. But the words should be well chosen and proper, suited to the ideas they are designed to convey; the expressions plain and clear, and the artificial ornaments few and modest. By *artificial ornaments* are here meant *tropes* and *figures*; and they are called *artificial*, because they vary from the natural dress of language, either in the words or manner of expression: though they are often used by those who are wholly unacquainted with the rules of art; and particularly metaphors, which persons who have the least command of language frequently run into through mere necessity, for want of a sufficient stock of proper words to convey their ideas. The *low style* therefore admits of these: but care should be taken to choose such as have been rendered familiar by use, or at least where the similitude is very plain and evident. Bold or lofty metaphors, or where the allusion is dark and remote, ought to be avoided. Nor is the moderate use of the other tropes wholly disagreeable to this style. And the same thing is to be said with respect to verbal figures, or such as consist in the particular disposition of the sentence, so that if the form of it be changed, the figure is lost. Of these, such as come nearest to the natural way of expression are most proper for this style; and therefore those which consist in a jingle of words, arising from the same or a like sound, are to be avoided, as carrying in them too much the appearance of art. Those likewise which consist in a repetition of the same word have often too great a force and vehemence for this mild and gentle character. And as to figures of sentences, which do not depend on the construction of words, but lie in the sense, many of them are too gay and

Elocution. and sprightly, and others too rapid and impetuous, for the simplicity of the low style; so that only the more moderate and sedate ones are to be allowed a place here. It is therefore no wonder if persons are often mistaken in their notions of this character; the beauty of which consisting in a certain plainness and simplicity, without any thing in it but what seems natural and common, every one is apt to imagine he can readily be master of it, till by experience he finds the contrary. For the case is much the same here, as in persons of fashion and good breeding, whose behaviour and address is attended with that agreeable freedom and seeming negligence, which in appearance is very easy to express, but in reality is scarce imitable by others.

As the *middle style* is more adapted for pleasure and delight, it admits of all those beauties and ornaments which soothe and entertain the mind. It has more force and energy than the low style, but less than the sublime. Smooth and harmonious numbers, well turned periods, of a just length, delightful cadency, and accurate disposition of the words, are suited to this style. The most beautiful and shining tropes, which strike the fancy, and all those verbal figures which, by a repetition, similitude, or proportion of sounds, please and gratify the ear, help to form this character. The like is to be said as to figures of sentences: The most florid and beautiful, such as enumeration, description, similitude, and the like, are here the most proper.

But it is the *sublime style* which perfects the orator. This requires the most forcible and emphatical words, the boldest metaphors, and strongest figures. In verbal figures, repetitions, synonyms, gradations, contraries, with others of a like force and energy, are chiefly employed here. But figures of sentences are the most considerable, and principally contribute to make up this character. Among these are families taken from lofty subjects, prosopopœia, apostrophe, exclamation, epiphonema, aposiopesis, and others of a like nature. But due care must likewise be taken of the form, construction, and harmony of the periods; which seem best disposed, when long and short ones are intermixed. For though round and swelling periods carry in them something grand and majestic, yet many times they move too slow to strike the passions; whereas short ones are more acute and pungent, and by returning quick, awaken the mind, and raise the passions. But to render it complete, it must be supported with strong reason, grandeur of thought, and sentiments every way equal to the expression; without which it will be very liable to swell into bombast, and end barely in amusement.

II. Having given a short sketch of this part of the orator's furniture, we shall now go on to show where, and in what manner, he is to make use of it. This will best appear by considering his principal view in each part of his discourse. Now the parts of a just oration (as we have formerly shown) are six; *Introduction*, *Narration*, *Proposition*, *Confirmation*, *Confutation*, and *Conclusion*. Not that all these are necessary in every discourse, but it is proper they should all be mentioned, that we may consider what style is fittest for them when they are necessary.

122 In the *Introduction*, the orator has three things before him; to gain the esteem of his hearers, to secure

their attention, and to give them some general notion of his subject. To set out modestly is undoubtedly the most likely way to recommend himself. For to attempt to inflame an audience, before they are prepared for it, or see the reason of much warmth, is highly improper. A prudent speaker will, like Demosthenes, begin with temper, and rise gradually, till he has insensibly warmed his hearers, and in some degree engaged their affections in his favour. So that this part scarce rises above the middle style. And if it carry in it an air of pleasantry and good-humour, it is generally the more apt to engage the attention.

The introduction is usually followed by the *narration*, or a recital of such things as either preceded, accompanied, or followed upon the subject under consideration. Now, as the qualities that recommend a narration are clearness, brevity, and probability; these sufficiently point out the style. Perspicuity arises from the choice of proper words, and such tropes as have been rendered most familiar by use; brevity requires moderate periods, whose parts are but little transposed; and a plain and simple dress, without ornament or colouring, is best suited to represent things probable: all which are the properties of the low style. And therefore Cicero says, *narrations come pretty near to our ordinary discourse*. Indeed, sometimes it is necessary not only to relate the facts themselves, but likewise to describe the manner in which they were performed. And then a further degree of art may be requisite to represent them with all their circumstances, and paint them to the mind in their proper colours.

The next part in order is the *proposition*, or subject of the discourse, in which there can be no room for ornament. But as it is the basis and foundation of the orator's whole design, it ought to be laid down in the plainest and clearest terms, so as to leave no room for doubt or uncertainty what it is which he intends to discourse upon.

The next thing is *confirmation*, wherein the orator endeavours to maintain and defend his own cause, and to convince his hearers of the truth of it by reason and argument. Now the low style is certainly fittest for cool reasoning and debate. But the orator's method of reasoning often very much differs from that of the philosopher. The latter contents himself with the most plain and familiar manner of representing the truth, and thinks it sufficient if what he says be clearly understood. But the former, at the same time that he convinces the judgment, endeavours likewise to affect the passions, and that in a great variety of ways. So that in this part of the discourse the style is very different, according to the nature and circumstances of the case. Sometimes, while he is dwelling upon the proof of a thing, he talks coolly, and reasons with the sedateness of a philosopher; and where any part of his argument appears doubtful or obscure, he endeavours with the same even temper to explain and clear it up. But frequently he intermixes with his proofs all the arts of persuasion, and embellishes his reasons with the greatest ornaments and beauties of eloquence.

Confirmation is usually followed by *confutation*, in which the orator endeavours to enervate and overthrow

Elocution. all that has been advanced in favour of the opposite side of the question. But as the style is much the same here as in the former part, what has been said upon that may be sufficient for this likewise.

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The last part above-mentioned is the *conclusion*. This consists of two branches, *recapitulation* and *address*. Recapitulation is a short recital of the several arguments, or at least the chief of them, which were before advanced in support of the cause; that, being brought together into a narrow compass, they may appear in a stronger light. Wherefore the language here ought rather to be forcible and strong than florid, because brevity and conciseness is a necessary quality. The other branch of the conclusion consists in an address to the passions, and is wholly persuasive; for which the speaker is now entirely at leisure. Indeed, this is often done occasionally in other parts of the discourse, particularly in the introduction and confirmation: But as in the former of these, his view is principally to secure the good opinion of the hearers, and excite their attention; and in the latter to defend his own side of the question by reason and argument; when these two points are gained, he has nothing left but to prevail with them to fall in with his design, and declare for him. And the best way to attain this is, by engaging their passions in his interest. Hence, then, to use Quintilian's words, "All the springs of eloquence are to be opened. Now we are past the rocks and shallows, all the sails may be hoisted. And as the greatest part of the conclusion consists in illustration, the most pompous language and strongest figures have place here."

All the variety above mentioned, however, is not always necessary. Regard must be had to the nature

Elocution. of the subject, the time, place, persons, and other circumstances; by all which the style is to be regulated. To discourse in a lofty and grand way upon a common topic, or in a low and flat manner upon a sublime argument, are both equally injudicious. Cicero refers us to some discourses of his own, as instances of each kind. His oration for Cæcina, he says, is written in the low style, that for the Manilian law in the middle style, and that for Rabirius in the sublime; and his Actions against Verres, with some others, are patterns of the variety here mentioned. And he gives us a very comprehensive description of a perfect orator in very few words, when he says: "He is one who can speak upon a low subject acutely, upon a lofty subject with sublimity, and upon a moderate subject temperately." By which he means no more, than one who is master of the three characters here described, and knows when and how to use them. But although he mentions several among the Greeks, and some few among the Romans, who excelled in one or other of these different kinds; yet one who excelled in them all, he supposes never to have existed, except in the imagination. The reason perhaps may be, because each of them seems to require a very different genius, so that it is scarce possible for the same person to succeed in them all. Since therefore it is so rare and difficult a matter to gain the command of each in any good degree, it is better perhaps for every one to pursue that which nature seems most inclined to, and to excel in it, than to strive against their genius. For every kind has its perfections; and it is more commendable to be master of one thing, than to do several but indifferently.

PART IV. OF PRONUNCIATION.

CHAP. I. Of Pronunciation in general.

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Pronunciation a conformity of the voice and gesture to the subject.

PRONUNCIATION is also called *Action* by some of the ancients. Though, if we attend to the proper signification of each of these words, the former respects the voice, and the latter the gestures and motions of the body. But if we consider them as synonymous terms, in this large sense pronunciation or action may be said to be *a suitable conformity of the voice, and the several motions of the body, in speaking, to the subject matter of the discourse*.

The best judges among the ancients have represented this as the principal part of an orator's province, from whence he is chiefly to expect success in the art of persuasion. When Cicero, in the person of Crassus, has largely and elegantly discoursed upon all the other parts of oratory, coming at last to speak of this, he says: "All the former have their effect as they are pronounced. It is the action alone that governs in speaking; without which the best orator is of no value, and is often defeated by one in other respects much his inferior." And he lets us know, that Demosthenes was of the same opinion, who, when he was asked what was the principal thing in oratory, replied, Action; and being asked again a second and a

third time, what was next considerable, he still made the same answer. By which he seemed to intimate, that he thought the whole art did in a manner consist in it. And indeed, if he had not judged this highly necessary for an orator, he would scarce have taken so much pains in correcting those natural defects, under which he laboured at first, in order to acquire it. For he had both a weak voice, and likewise an impediment in his speech, so that he could not pronounce distinctly some particular letters. The former of which defects he conquered, partly by speaking as loud as he could upon the shore, when the sea roared and was boisterous; and partly, by pronouncing long periods as he walked up hill; both of which methods contributed to the strengthening of his voice. And he found means to render his pronunciation more clear and articulate, by the help of some little stones put under his tongue. Nor was he less careful in endeavouring to gain the habit of a becoming and decent gesture; for which purpose he used to pronounce his discourses alone before a large glass. And because he had got an ill custom of drawing up his shoulders when he spoke; to amend that, he used to place them under a sword, which hung over him with the point downward. Such pains did this prince of the Grecian orators take to remove those difficulties, which would have

Pronunciation. have been sufficient to discourage an inferior and less aspiring genius. And to how great a perfection he arrived in his action, under all these disadvantages, by his indefatigable diligence and application, is evident from the confession of his great adversary and rival in oratory, Æschines. Who, when he could not bear the disgrace of being worsted by Demosthenes in the cause of Ctesiphon, retired to Rhodes. And being desired by the inhabitants to recite to them his own oration upon that occasion, which accordingly he did; the next day they requested of him to let them hear that of Demosthenes; which having pronounced in a most graceful manner, to the admiration of all who were present, "How much more (says he) would you have wondered if you had heard him speak it himself!" By which he plainly gave Demosthenes the preference in that respect. We might add to these authorities the judgment of Quintilian, who says, that "it is not of so much moment what our compositions are, as how they are pronounced; since it is the manner of the delivery, by which the audience is moved." And therefore he ventures to assert, that "an indifferent discourse, assisted by a lively and graceful action, will have greater efficacy than the finest harangue which wants that advantage."

The truth of this sentiment of the ancients concerning the power and efficacy of pronunciation, might be proved from many instances; but one or two may here suffice. Hortensius, a cotemporary with Cicero, and while living next to him in reputation as an orator, was highly applauded for his action. But his orations after his death, as Quintilian tells us (for we have none of them now remaining), did not appear answerable to his character; from whence he justly concludes, there must have been something pleasing when he spoke by which he gained his character, which was lost in reading them. But perhaps there is scarce a more considerable instance of this than in Cicero himself. After the death of Pompey, when Cæsar had got the government into his own hands, many of his acquaintance interceded with him in behalf of their relations and friends, who had been of the contrary party in the late wars. Among others, Cicero solicited for his friend Ligarius; which Tubero understanding, who owed Ligarius a grudge, he opposed it, and undertook to represent him to Cæsar as unworthy of his mercy. Cæsar himself was prejudiced against Ligarius; and therefore, when the cause was to come before him, he said, "We may venture to hear Cicero display his eloquence; for I know the person he pleads for to be an ill man, and my enemy." But, however, in the course of his oration, Cicero so worked upon his passions, that by the frequent alteration of his countenance, the emotions of his mind were very conspicuous. And when he came to touch upon the battle of Pharsalia, which had given Cæsar the empire of the world, he represented it in that moving and lively manner, that Cæsar could no longer contain himself, but was thrown into such a fit of shivering, that he dropped the papers which he held in his hand. This was the more remarkable, because Cæsar was himself one of the greatest orators of that age, knew all the arts of address, and avenues to the passions, and consequently was better prepared to guard against them. But neither his skill, nor resolution of

mind, was of sufficient force against the power of oratory; but the conqueror of the world became a conquest to the charms of Cicero's eloquence; so that, contrary to his intention, he gave into his plea, and pardoned Ligarius. Now that oration is still extant, and appears exceedingly well calculated to touch the soft and tender passions and springs of the soul; but we believe it can scarce be discernible to any in reading it, how it should have had so surprising an effect; which must therefore have been chiefly owing to the wonderful address and conduct of the speaker.

The more natural the pronunciation is, it will of consequence be the more moving, since the perfection of art consists in its nearest resemblance to nature. And therefore it is not without good reason, that the ancients make it one qualification of an orator, that he be a good man; because a person of this character will make the cause he espouses his own, and the more sensibly he is touched with it himself, his action will be the more natural, and by that means the more easily affect others in the same manner. Cicero, speaking upon this subject, says, "It is certain that truth (by which he means nature) in every thing excels imitation; but if that was sufficient of itself in action, we should have no occasion for art." In his opinion therefore (and who was ever a better judge), art, in this case as well as in many others, if well managed, will assist and improve nature. But that is not all; for sometimes we find the force of it so great and powerful, that, where it is wholly counterfeit, it will for the time work the same effect as if it was founded in truth. This is well known to those who have been conversant with the representations of the theatre. In tragedies, though we are sensible that every thing we see and hear is feigned and counterfeit, yet such is the power of action, that we are oftentimes affected by it in the same manner as if they were all realities. Anger and resentment at the appearance of cruelty, concern and solicitude for distressed virtue, rise in our breasts; and tears are extorted from us for oppressed innocence: though at the same time, perhaps, we are ready to laugh at ourselves for being thus decoyed. If art then has so great an influence upon us, when supported only by fancy and imagination, how powerful must be the effect of a just and lively representation of what we know to be true and real?

How agreeable it is both to nature and reason, that a warmth of expression and vehemency of motion should rise in proportion to the importance of the subject and concern of the speaker, will further appear, by looking back a little into the more early and simple ages of the world. For the higher we go, the more we shall find of both. We shall give the observation of a very great man upon this head, in his own words. "The Romans (says he) had a very great talent this way, and the Greeks a greater. The eastern nations excelled in it, and particularly the Hebrews. Nothing can equal the strength and vivacity of the figures they employed in their discourse; and the very actions they used to express their sentiments; such as putting ashes on their heads, and tearing their garments, and covering themselves with sackcloth under any deep distress and sorrow of mind. I do not speak of what the prophets did to give a more lively representation of the things they foretold, because such

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such figurative actions were the effect of divine inspiration. But even in other cases we find those people understood much better than we do how to express their grief, and fear, and other passions. And hence, no doubt, arose those surprising effects of eloquence, which we never experience now." Thus far this excellent writer. And what he says here with respect to the actions of the eastern nations, was in a good measure customary among the Greeks and Romans; if not entirely of the same kind, yet perhaps as vehement and expressive. They did not think language of itself sufficient to express the height of their passions, unless enforced by uncommon motions and gestures. Thus, when Achilles had driven the Trojans into their city with the greatest precipitation and terror, and only Hector ventured to tarry without the gates to engage him; Homer represents both king Priam and his queen under the highest consternation for the danger of their son. And therefore, in order to prevail with him to come into the city, and not fight with Achilles, they not only intreat him from the walls in the most tender and moving language imaginable; but he tears off his grey locks with his hands; and she in a flood of tears exposes her breasts, and adjures him by those paps which suckled him, to comply with their request. The poet knew very well, that no words of themselves could represent those agonies of mind he endeavoured to convey, unless heightened by the idea of such actions as were expressive of the deepest sorrow. And indeed this was anciently esteemed so requisite in an orator, that in matters of importance he was scarce thought to be in earnest who wanted it. In one of Cicero's orations, he does not stick to argue in that manner with his adversary. "Would you talk thus (says he) if you was serious? Would you, who are wont to display your eloquence so warmly in the danger of others, act so coldly in your own? Where is that concern, that ardour, which used to extort pity even from children? Here is no emotion either of mind or body; neither the forehead struck, nor the thigh, nor so much as a stamp of the foot. Therefore, you have been so far from inflaming our minds, that you have scarce kept us awake."

As action therefore was judged so necessary a qualification in an orator among the ancients, so they made use of several methods and expedients for the better attaining it. The principal of which we shall briefly mention.

Decency of pronunciation is an habit. And as all habits are gained by time, so the sooner they are learned, they are generally acquired with greater ease. For while persons are young, they are not only more flexible, and capable of any particular bent, but they are likewise free from the trouble of encountering and subduing contrary habits, which doubles the labour, and increases the difficulty of attaining any laudable quality. Quintilian was very sensible of this in the case here before us; and therefore, in order to have persons trained up to it, he begins with them in their childhood, and descends so low as even to give directions how they should be taught to pronounce when they first learn to read. And he advises, that they should then be instructed where to suspend their voice, and make the proper pauses, both in distinguishing the several parts of the same sentence, and in separa-

ting one sentence from another; likewise when to raise or sink their voice, or give it a proper inflection; to be slower or faster, more vehement or sedate, as the nature of the things may require; and that the tone of their voice be always manly and grave, but at the same time mixed with an agreeable sweetness. These things may perhaps appear in themselves small; but if duly attended to, they will be found of considerable service to bring us to a just and proper pronunciation. For in every thing that is to be attained by practice, it is a great advantage to set out right at first.

The ancients likewise had persons whom they called *phonasci*, whose proper business it was to teach them how to regulate and manage their voice; and others, who instructed them in the whole art of pronunciation, both as to their voice and gestures. These latter were generally taken from the theatre, being some eminent experienced actors. So Quintilian, treating of the province of these persons, says, "The comedian ought to teach them how to relate facts, with what authority to advise, with what vehemence to express anger, and with what softness compassion." And speaking of gestures, he says, "He should admonish them to raise their countenance, not distort their lips, or stretch their mouths." With several other directions of the like kind. And we are told concerning the emperor M. Antoninus, usually called the philosopher, that *His first masters were Euphorio the grammarian, and Geminus the comedian.*

But though they made use of actors to instruct their youth in forming their speech and gestures, yet the action of an orator was much different from that of the theatre. Cicero very plainly represents this distinction, in the words of Crassus, when, speaking of orators, he says, "The motions of the body ought to be suited to the expressions, not in a theatrical way, mimicking the words by particular gesticulations, but in a manner expressive of the general sense, with a sedate and manly inflection of the sides; not taken from the stage and actors, but from the exercise of arms and the palestra." And Quintilian says to the same purpose, "Every gesture and motion of the comedians is not to be imitated, nor to the same degree." They thought the action of the theatre too light and extravagant for the imitation of an orator; and therefore, though they employed actors to inform young persons in the first rudiments, yet they were afterwards sent to the palestra, or schools designed on purpose to teach them a decent and graceful management of their bodies. And such schools, as Quintilian informs us, were in use both among the Greeks and Romans: Just as of later ages children learn to dance, in some measure with the same intention.

Being thus far prepared, they were afterwards sent to the schools of the rhetoricians. And here, as their business was to cultivate their style, and gain the whole art of eloquence; so particularly to acquire a just and accurate pronunciation by those exercises, in which for that end they were constantly employed. And as the Greeks were most celebrated for their skill in all the polite arts, and especially oratory; the Roman gentry and nobility generally sent their sons abroad, and placed them under the tuition of some Grecian master, to instruct them in the art of speaking,

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ing, and by that means to fit them for the service of their country, either in the courts of judicature or the senate. Thus Cicero was sent to Rhodes, to study under the famous Molo, and Brutus under Pammenes; Cæsar was going to the same place when taken by pirates; and Augustus afterwards studied there under Apollodorus.

Nor, after all this pains and industry, did they yet think themselves sufficiently qualified to take upon them the character of orators. But it was their constant custom to get together some of their friends and acquaintance who were proper judges of such performances, and declaim before them in private. The business of these persons was to make observations both on their language and pronunciation. And they were allowed the greatest freedom to take notice of any thing they thought amiss, either as to inaccuracy of method, impropriety of style, or indecency of their voice or actions. This gave them an opportunity to correct any such defects at first, before they became habitual. What effects might not justly be expected from such an institution? Persons trained up in this manner, with all those advantages, joined to a good natural genius, could not fail of making very complete orators. Though even after they came to appear in public, they did not lay aside the custom of declaiming. For Quintilian tells us, that *C. Carbo used to practise it daily in his tent*. And Augustus is reported to have continued it during the war of Mutina against M. Antony. Nor is it to be supposed, that so constant an attendance to this practice was only serviceable to them in their public performances; but it must necessarily affect their whole conduct, give them a freedom of speech, easiness of address and behaviour, and render them in all respects fine gentlemen, as well as excellent orators. And from hence perhaps we may see less reason to wonder at the surprising effects of some of their discourses, when we consider what pains they took to arrive at those abilities.

Having thus far treated on pronunciation in general, we shall now proceed to consider the parts of it separately; which are *voice* and *gesture*.

CHAP. II. Of the Voice.

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VOICE is one kind of sounds. Now the influence of sounds, either to raise or allay our passions, is evident from music. And certainly the harmony of a fine discourse, well and gracefully pronounced, is as capable to move us, if not in a way so violent and ecstatic, yet not less powerful, and more agreeable to our rational faculties. As the business of this chapter is to offer some considerations for the just and decent management of the voice, it may not be improper in the first place to observe in general what nature does when free and unconstrained. As persons are differently affected when they speak; so they naturally alter the tone of their voice, though they do not attend to it. It rises, sinks, and has various inflections given it, according to the present state and disposition of the mind. When the mind is calm and sedate, the voice is moderate and even; when the former is dejected with sorrow, the latter is languid; and when that is inflamed by passion, this is raised and elevated. It is the orator's business, therefore, to follow nature, and

to endeavour that the tone of his voice appear natural and unaffected. And for this end, he must take care to suit it to the nature of the subject; but still so as to be always grave and decent. Some persons continue a discourse in such a low and drawling manner, that they can scarce be heard by their audience. Others again hurry on in so loud and boisterous a manner as if they imagined their hearers were deaf. But all the music and harmony of speech lies in the proper temperament of the voice between these extremes. In order to set this matter in a just light, it will be necessary to consider the principal affections or properties of the voice, and how they are to be regulated by an orator. Now these may all be referred either to *quantity* or *quality*.

The *quantity* of the voice consists in its *highness* or *lowness*, *swiftness* or *slowness*, and the intermediate degrees between them.

Every person who speaks in public, should endeavour, if he can, to fill the place where he speaks. But still he ought to be careful not to exceed the natural key of his voice. If he does, it will neither be soft nor agreeable; but either harsh and rough, or too shrill and squeaking. Besides, he will not be able to give every syllable its full and distinct sound; which will render what he says obscure, and difficult to be understood. He should therefore take care to keep his voice within reach, so as to have it under management, that he may raise or sink it, or give it any inflection he thinks proper: Which it will not be in his power to do, if he put a force upon it, and strain it beyond its natural tone.

The like caution is to be used against the contrary extreme, that the voice be not dropped, and suffered to sink too low. This will give the speaker pain in raising it again to its proper pitch, and be no less offensive to the hearers. For though the music of speech consists in the variations of the voice, yet they must be gradual to render them pleasant. Such sudden and great changes at once are rather to be esteemed chasms in speaking, than variations. Besides, as they often prevent the hearers from taking in the sense of what is said, it gives them no small uneasiness that they are obliged to stretch their attention. Many persons are too apt to be guilty of this, especially at the end of a sentence, by dropping the last word; which ought in a particular manner to be expressed distinctly, because the meaning of the whole sentence often depends upon it.

The medium between these two is a moderate and even voice. But this is not the same in all; that which is moderate in one would be high in another. Every person therefore must regulate it by the natural key of his own voice. A calm and sedate voice is generally best; as a moderate sound is most pleasing to the ear, if it be clear and distinct. But this equality of the voice must also be accompanied with a variety, otherwise there can be no harmony; since all harmony consists in variety. Nothing is less pleasing than a discourse pronounced throughout in one continued tone of the voice, without any change or alteration. Besides, a variation of the voice is an ease to the speaker; as the body is relieved by shifting its posture. The equality therefore we are here speaking of admits a variety of inflections and changes within the same pitch.

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pitch. And when that is altered, the gradations, whether higher or lower, should be so gentle and regular as to preserve a due proportion of the parts and harmony of the whole; which cannot be done, when the voice is suddenly varied with too great a distinction. And therefore it should move from one key to another, so as rather to glide like a gentle stream, than pour down like a rapid torrent, as an ingenious writer has well expressed it. An even voice is best fitted to keep the mind to close attention. And therefore, in subjects designed only for instruction, without any address to the passions, there is little room for a variety of voice. For the voice ought to agree with the style; and as upon such subjects this should be equal, moderate, and smooth, so should the other. Every thing, as we say, is beautiful in its season; and there is a certain propriety in things which ought always to be regarded. And therefore, an affected variety, ill placed, is as disagreeable to a judicious audience, as the want of it, where the subject requires it. We may find some persons, in pronouncing a grave and plain discourse, affect as many different tones, changes, and variations of their voice, as if they were acting a comedy; which is doubtless a very great impropriety. But the orator's province is not barely to apply to the mind, but likewise to the passions; which require a great variety of the voice, high or low, vehement or languid, according to the nature of the passions he designs to affect. So that for an orator always to use the same tone or degree of his voice, and expect to answer all his views by it, would be much the same thing as if a physician should propose to cure all distempers by one medicine. From hence it is evident, that although various inflections and tones of the voice are requisite to make it harmonious and pleasing to the ear; yet the degree of it should differ according to the nature of the subject and design of the speaker. And, as a perfect monotony is always unpleasant, so it can never be necessary in any discourse.

The next property of the voice above-mentioned was *swiftness*. That some expressions ought to be pronounced faster and swifter than others, is very manifest. Gay and sprightly ideas should not only be expressed louder, but also faster, than such as are sad and melancholy. And when we press an adversary, the voice should be brisk and quick. But to hurry on in a precipitant manner without pausing, till stopt for want of breath, is certainly a very great fault. This destroys not only the necessary distinction between sentence and sentence, but likewise between the several words of the same sentence; nay, and often occasions us to express our words by halves, while one is thrown so fast upon another, that we are not able to give each its full and just sound. By this means all the grace of speaking is lost, and in a great measure the advantage of hearing. For when the ears of the hearers cannot keep pace with the volubility of the speaker's tongue, they will be little the better for what he says. Besides, by not commanding his voice, and easing his breath at the proper pauses and points of distinction, he is often obliged to stop in the middle of a sentence; and so divides what should be continued, and joins what should be separated; which must necessarily destroy the sense, and confound his

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discourse. Young persons are very liable to this, especially at first setting out. And it often arises from diffidence. They are jealous of their performances, and the success they may have in speaking, which gives them a pain till it is over; and this puts them into a hurry of mind, which incapacitates them from governing their voice, and keeping it under that due regulation which perhaps they proposed to themselves before they began to speak. And the greater degree such persons have of a native and ingenuous modesty, accompanied with a laudable ambition to excel, they are commonly more exposed to this. For while on the one hand they are fired with an ardent desire to recommend themselves, and on the other are fearful of the event, this dubious state of mind is very apt to throw them off their guard, and run them into this excess. From which we may see the great advantage of having the voice well formed betimes; for when once it is become habitual to speak with justness and propriety, persons readily practise it without much attention or concern.

And as a precipitant and hasty pronunciation is culpable, so likewise on the other hand, it is a fault to speak too slow. This seems to argue a heaviness in the speaker. And as he appears cool himself, he can never expect to warm his hearers, and excite their affections. When not only every word, but every syllable is drawn out to too great a length, the ideas do not come fast enough to keep up the attention without much uneasiness. For till the sense is completed, the mind is in suspense; and, if it be held long in that situation, it will of course flag and grow tired. Indeed, in some cases, it is requisite the pronunciation should be slower than in others; as in representing things great and difficult; or in expressing some particular passions, as admiration or grief. But the extreme we are now speaking of, is a slowness equally continued through a whole discourse, which must necessarily render it flat and lifeless.

Now, to avoid either of the two extremes last mentioned, the voice ought to be sedate and distinct. And in order to render it distinct, it is necessary, not only that each word and syllable should have its just and full sound, both as to time and accent; but likewise that every sentence, and part of a sentence, should be separated by its proper pause and interval. This is more easy to be done in reading, from the assistance of the points; but it is no less to be attended to in speaking, if we would pronounce in a distinct and graceful manner. For every one should speak in the same manner as he ought to read, if he could arrive at that exactness. Now the common rule given in pausing is, that we stop our voice at a comma till we can tell one, at a semicolon two, at a colon three, and at a full period four. And as these points are either accommodated to the several parts of the same sentence, as the first three; or different sentences, as the last; this occasions the different length of the pause, by which either the dependence of what precedes upon that which follows, or its distinction from it, is represented. And therefore, in the first three stops, the voice is rather to be suspended in different degrees or measures of time, than entirely dropt, to show that the sense is not yet completed. But between sentence and sentence we respire, and begin anew. So that

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that in long periods, the voice should be favoured by beginning low and sedately, that it may hold to the end without respiration; or if it will not, the breath ought to be recovered without sinking the voice. For if once the voice drop for want of breath before the period be finished, not only the beauty, but likewise the sense of it will be lost. Quintilian lays a great stress upon a due attention to these pauses; and says, "Though it may appear not so considerable in itself, yet all the other virtues of a good pronunciation are deficient without it."

Hitherto we have considered such properties of the voice as respect *quantity*, we come now to speak of its *qualities*. And the chief of these are *strength* or *weakness*, *clearness* or *obscurity*, *fullness* or *smallness*, *smoothness* or *roughness*. Now, one half of these is what every one would willingly choose, as he would wish to be free from the others. But it is not in our power to give ourselves what qualities of the voice we please; but only to make the best use we can of what nature has bestowed upon us. However, several defects of the voice are capable of being helped by care and proper means; as, on the other hand, the best voice may be greatly hurt by ill management and indiscretion. Temperance is a great preservative of the voice, and all excess is highly prejudicial to it. The voice must necessarily suffer, if the organs of speech have not their proper tone. And in order to their having this, they must be kept in a due temperature; that is, they must neither be too moist nor too dry. If they abound with fluids, these will obstruct the clearness of the voice, and render it obscure and confused; and if they are parched with drought, the voice will be harsh and rough. Now all excesses, as well as some bodily indispositions, are apt to affect the organs one or other of these ways.

A strong voice is very serviceable to an orator, because, if it want some other advantages, he is, however, capable to make himself heard. And if at any time he is forced to strain it, he is in less danger of its failing him before he has finished his discourse. But he who has a weak voice, should be very careful not to strain it, especially at first. He ought to begin low, and rise gradually to such a pitch as the key of his voice will well carry him, without being obliged to sink again afterwards. Frequent inflections of the voice will likewise be some assistance to him. But especially he should take care to speak deliberately, and ease his voice, by allowing due time for respiration at all the proper pauses. It is an extreme much less inconvenient for such a person rather to speak too slow, than too fast. But this defect of a weak voice is sometimes capable of being helped by the use of proper methods; as is evident from the instance of Demosthenes, before-mentioned.

A voice is said to be *clear*, when the organs of speech are suited to give every single letter, and all the combinations of them in syllables and words, their proper and distinct sound. Such a voice is very pleasing and agreeable to the hearers; and no less an happiness to the speaker, as it saves him a great expence of spirits. For a moderate voice, if clear, will be as distinctly heard, as one much louder, if thick and obscure. Which is a great advantage to the speaker, because he can better keep his voice under

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command, and modulate it at pleasure, as the several parts and circumstances of his discourse may require. On the contrary, an obscure and confused voice is not always occasioned from a deficiency in the organ; but many times is the effect of custom and a bad habit. Some persons, either from want of due care in their education at first, or from inadvertency and negligence afterwards, run into a very irregular and confused manner of expressing their words; either by misplacing the accent, confounding the sound of the letters, or huddling the syllables one upon another, so as to render what they say often unintelligible. Indeed, sometimes this arises from a natural defect, as in the case of Demosthenes; who found a method to rectify that, as well as the weakness of his voice. But in faults of this kind, which proceed from habit, doubtless the most likely way to mend them is to speak deliberately.

A full voice is not the same as a strong or a loud voice. It fills the ear, but it is often not pleasant. And therefore to render it so, as well as audible, it should be frequently varied. However, this seems better suited to the character of an orator, than a small and shrill voice; because it has something in it more grave and manly. And those who have the misfortune of a very small voice, should be cautious of raising it to too high a pitch, especially at once; because the sudden compression of the organ is apt to occasion a squeaking and very disagreeable sound.

A soft and smooth voice is of all the most musical, especially if it be flexible. And on the contrary, nothing is less harmonious than a voice that is harsh and rough. For the one grates as disagreeably upon the ear, as the other gives it pleasure and delight.

From the consideration of these several properties of the voice, we may conclude that to be the best, and fittest for an orator, which is moderate, distinct, firm, clear, and smooth, and withal easily flexible to the several degrees and variations of sound which every part of the discourse may require.

CHAP. III. *Of Gesture.*

By this is meant, a suitable conformity of the motions of the countenance, and several parts of the body in speaking, to the subject-matter of the discourse. The word *gesture* is here used in a larger sense than is ordinarily done in common language. For we rarely make use of that word to denote the motions of the countenance, or any parts of it; but as these make a considerable part of our present subject, they must here be comprehended under this term.

It is not agreed among the learned, whether voice or gesture has the greater influence upon us. But as the latter affects us by the eye, as the former does by the ear, gesture in the nature of it seems to have this advantage, that it conveys the impression more speedily to the mind; for the sight is the quickest of all our senses. Nor is its influence less upon our passions; nay, in some instances it appears to act more powerfully. A cast of the eye shall express desire in as moving a manner as the softest language; and a different motion of it, resentment. To wring the hands, tear the hair, or strike the breast, are all strong indica-

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tions of sorrow. And he who claps his hand to his sword, throws us into a greater panic than one who only threatens to kill us. Nor is it in some respects less various and extensive than language. Cicero tells us, he often diverted himself by trying this with Roscius the comedian; who could express a sentence as many ways by his gestures, as he himself by words. And some dramas, called *pantomimes*, have been carried on wholly by mutes, who have performed every part by gestures only, without words, in a way very intelligent, as well as entertaining to the spectators. Well therefore might Cicero call *action* (or gesture) *the language of the body*, since it is capable in so lively a manner to convey both our ideas and passions. But with respect to oratory, gesture may very properly be called the *second part of pronunciation*; in which, as the voice should be suited to the impressions it receives from the mind, so the several motions of the body ought to be accommodated to the various tones and inflections of the voice. When the voice is even and moderate, little gesture is required; and nothing is more unnatural than violent motion, in discoursing upon ordinary and familiar subjects. The motions of the body should rise therefore in proportion to the vehemence and energy of the expression, as the natural and genuine effect of it.

But as gesture is very different and various as to the manner of it, which depends upon the decent conduct of several parts of the body; it will not be amiss to consider more particularly the proper management of each of those parts. Now all gesture is either natural, or from imitation. By natural gesture we mean such actions and motions of the body, as naturally accompany our words, as these do the impressions of our minds. And these either respect the whole body, or some particular part of it. But before we enter upon this, give us leave just to observe, that it has been customary in all ages and countries, in making a set discourse before an assembly, to do it standing. Thus we read, that *Abraham stood up, and spake unto the children of Heth*. And it seems as if he sat down, when he had ended his speech; because, immediately after the account of their answer, it is said again, that *Abraham stood up and bowed himself to the people of the land, the children of Heth*. In like manner Homer represents the Grecian princes, as standing up, when they made a speech, either to the army, or in their councils. So when Achilles has assembled the army, to inquire into the reason of the great plague which at that time raged among them, he rises up before he begins to speak, and sits down again when he has done. After him the prophet Calchas rises, and charges it upon Agamemnon; who rising up in a passion, does not refuse to comply with what Calchas proposed, but expresses his resentment at him for saying it. And upon another occasion, both Agamemnon and Nestor do the same in council. And Cicero acquaints us, that when Lentulus had been charged in the senate as an associate with Catiline, he stood up to make his defence. Nor does the advantage of being better heard, seem to have been the only reason for so general an agreement in this posture; but it appears likewise to have been chosen, as the most decent and respectful. Sitting carries in it an air of authority, and is therefore a

posture scarce used upon such occasions, unless perhaps where that is designed to be expressed by it. Wherefore it was a thing very much resented, that when Cæsar, after he had got the power into his hands, once addressed the senate, either refused to rise, as some say, or as others, one of his friends held him down by his gown.

But though standing appears to be the most proper posture for speaking in public, yet it is very unbecoming for the body to be entirely without any motion like a statue. It should not long continue in the same position, but be constantly changing, though the motion be very moderate. There ought to be no appearance of stiffness, but a certain ease and pliability, naturally suiting itself to every expression; by which means, when a greater degree of motion is necessary, it will appear less sudden and vehement: For as the raising, sinking, and various inflections of the voice must be gradual; so likewise should the motions of the body. It is only on some particular occasions that an hasty vehemence and impetuosity is proper in either case.

As to the several parts of the body, the head is the most considerable. To lift it up too high has the air of arrogance and pride; to stretch it out too far, or throw it back, looks clownish and unmannerly; to hang it downwards on the breast, shows an unmanly bashfulness and want of spirit; and to suffer it to lean on either shoulder, argues both sloth and indolence. Wherefore in calm and sedate discourse it ought to keep its natural state, an upright posture. However, it should not be long without motion, nor yet always moving; but gently turn sometimes on one side, and sometimes on the other, as occasion requires, that the voice may be heard by all who are present; and then return again to its natural position. It should always accompany the other actions of the body, and turn on the same side with them; except when aversion to any thing is expressed, which is done by stretching out the right hand, and turning the head to the left. The ancients erected a statue of Venus in this posture, who was called by the Greeks *αποστροφή*, and by the Latins *Verticordia*, and in English may be termed the *forbidding Venus*. But nothing is more indecent than violent motions and agitations of the head. And therefore, when a witty writer, who is well known among us, would convey the most ridiculous idea of a pretender to knowledge, he expresses it thus:

For having three times shook his head
To stir his wit up, thus he said.

HUMOR.

But it is the countenance, that chiefly represents both the passions and disposition of the mind. By this we express love, hatred, joy, sorrow, modesty, and confidence: by this we supplicate, threaten, sooth, invite, forbid, consent, or refuse; and all this without speaking. Nay, from hence we form a judgment not only of a person's present temper, but of his capacity and natural disposition. And therefore it is common to say, *such an one has a promising countenance*, or *that he promises little by his countenance*. It is true, this is no certain rule of judging; nor is it in the power of any one to alter the natural make of his countenance: however, it may put us upon endeavouring to gain the most pleasing aspect we can; since it is so natural

Pronunciation. for mankind to draw such conclusions from it; and some persons are so unhappy, as to render their countenance more disagreeable, than otherwise it would be, by ill habits.

But the several parts of the face bear their part, and contribute to the proper and decent motion of the whole. In calm and sedate discourse, all the features retain their natural state and situation. In sorrow, the forehead and eyebrows lour, and the cheeks hang down. But in expressions of joy and cheerfulness, the forehead and eyebrows are expanded, the cheeks contracted, and the corners of the mouth drawn upwards. Anger and resentment contract the forehead, draw the brows together, and thrust out the lips. And terror elevates both the brows and forehead. As these are the natural signs of such passions, the orator should endeavour to conform to them.

But as the eyes are most active and significant, it is the advice of Cicero that the greatest care should be taken in their management. And he gives this reason for it, "Because other parts of the countenance have but few motions; whereas all the passions of the soul are expressed in the eyes, by so many different actions, which cannot possibly be represented by any gestures of the body, if the eyes are kept in a fixed posture." Common experience does in a great measure confirm the truth of this observation. We readily guess at a person's intention, or how he is affected to us, by his eyes. And any sudden change or emotion of the mind is presently followed by an alteration in the look. In speaking therefore upon pleasant and delightful subjects, the eyes are brisk and cheerful; as, on the contrary, they sink and are languid in delivering any thing melancholy and sorrowful. This is so agreeable to nature, that before a person speaks, we are prepared with the expectation of one or the other from his different aspect. So likewise in anger, a certain vehemence and intenseness appears in the eyes, which, for want of proper words to express it by, we endeavour to represent by metaphors taken from fire, the most violent and rapid element, and say in such cases, the *eyes sparkle, burn, or are inflamed*. In expressions of hatred or detestation, it is natural to alter the look, either by turning the eyes aside, or downwards. Virgil has very justly observed this: for when he describes Æneas meeting with Dido in the Elysian shades, and addressing her, he represents her disregard of him, by saying,

Disdainfully she look'd; then turning round,
Still fix'd her eyes unmov'd upon the ground.

She showed her resentment for his former treatment of her, by not vouchsafing to look on him. Indeed, the eyes are sometimes turned downwards upon other occasions, as to express modesty. And if at any time a particular object be addressed to, whatever it be, the eyes should be turned that way. And therefore Philostratus very deservedly ridicules a certain rhetorician as guilty of a solecism in gesture, who, upon saying, *O Jupiter!* turned his eyes downward; and when he said, *O earth!* looked upward. A staring look has the appearance of giddiness and want of thought; and to contract the eyes, gives suspicion of craft and design. A fixed look may be occasioned from intenseness of thought, but at the same time shows a disre-

Pronunciation. gard to the audience; and a too quick and wandering motion of the eyes denotes levity and wantonness. A gentle and moderate motion of the eyes is therefore in common most suitable, always directed to some of the audience, and gradually turning from side to side with an air of respect and modesty, and looking them decently in the face, as in common discourse: Such a behaviour will of course draw an attention. As in conversation, when a person addresses us in an handsome and becoming manner, we presently put ourselves in a posture to give what he says a proper reception. But as all the passions are in the most lively manner expressed in the eyes, their motions ought to vary according to the different nature of those passions they are suited both to discover in the speaker, and convey to his hearers; since, as the quickest access to the mind is by the sight, a proper well-timed look will sometimes sooner effect this than it can be done by words; as in discharging a cannon, we are struck with the light before we hear the sound.

As to the other parts of the body distinct from the head, the shoulders ought not to be elevated; for this is not only in itself indecent, but it likewise contracts the neck, and hinders the proper motion of the head. Nor, on the other hand, should they be drawn down, and depressed; because this occasions a stiffness both to the neck and the whole body. Their natural posture therefore is best, as being most easy and graceful. To shrug the shoulders has an abject and servile air; and frequently to heave them upwards and downwards is a very disagreeable sight.

A continued motion of the arms any way, is by all means to be avoided. Their action should generally be very moderate, and follow that of the hands, unless in very pathetic expressions, where it may be proper to give them a more lively spring.

The hands need never be idle. Quintilian seems to think them as necessary and powerful in action, as Cicero does the eyes. "The hands (says he), without which all gesture is lame and weak, have a greater variety of motions than can well be expressed; for they are almost equal to our words. Do not we desire with them, promise, call, dismiss, threaten, beseech, detest, fear, inquire, deny? Do not they express joy, sorrow, doubt, confession, penitence, measure, plenty, number, and time? Do not they excite, restrain, prove, admire, and shame? That in so great a variety of speech among all nations and countries, this seems to me the common language of all mankind." Thus far Quintilian. Now, all bodily motion is either upward or downward, to the right or left, forward or backward, or else circular. The hands are employed by the orator in all these, except the last. And as they ought to correspond with our expressions, so they ought to begin and end with them. In admiration, and addresses to heaven, they must be elevated, but never raised above the eyes; and in speaking of things below us, they are directed downwards. Side motion should generally begin from the left, and terminate gently on the right. In demonstrating, addressing, and on several other occasions, they are moved forward; and in threatening, sometimes thrown back. But when the orator speaks of himself, his right-hand should be gently laid on his breast. When no other motion is necessary, the hands should be kept about as high as

Pronun-
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tion.

the breast, so as to make near a right angle with the arm. This is not only graceful, but likewise the most easy posture, and gives the least strain to the muscles. They should never be suffered to hang down, nor to loll upon the cushion or bar. The left hand should never move alone, but accommodate itself to the motions of the right. In motions to the left side, the right hand should not be carried beyond the left shoulder. In promises, and expressions of compliment, the motion of the hands should be gentle and slow; but in exhortations and applause more swift. The hands should generally be open; but in expressions of compunction and anger they may be closed. All finical and trifling actions of the fingers ought to be avoided; nor should they be stretched out and expanded in a stiff and rigid posture, but kept easy and pliable.

Neither the breast nor the belly should be thrust out: which in itself looks ungainly, and hinders the free motion of the trunk; which ought not to be kept too stiff and upright, but easy and flexible, always suiting itself to the motions of the head and hands. The feet should continue steady, and not give the body a wavering and giddy motion by frequently shifting; tho' some persons fall into that habit without moving their feet. Curio, a Roman orator, as Cicero tells us, was addicted to this; which occasioned a friend of his once to pass a joke upon him, by asking, *Who that was talking out of a boat?* The jest is too plain to need explication; for every one knows the waving of a boat will give the body such a motion.

The gestures we have hitherto discoursed of, are such as naturally accompany our expressions. And we believe those we have mentioned, if duly attended to, will be found sufficient to answer all the purposes of our modern pronunciation. The ancients, indeed, used several more vehement actions and gestures than we are accustomed to; as we have formerly shown. Philip the Roman orator, as Cicero informs us, did not use to prepare his discourses; but spoke, as we say, *off-hand*. And he was wont to tell his friends, "he was never fit to talk till he had warmed his arm." He doubtless, therefore, used a more violent motion with his arms and hands than is common with us. And Cicero calls the arm projected *the orator's weapon*. Indeed, to extend or brandish the arm, carries in it an air of command and authority, which was not unbecoming the character of Philip, who was a person of the highest rank and quality. And therefore young orators, both among the Greeks and Romans, for a time used no motion of the arm, but kept it confined in their garment, as an argument of modesty, till age and experience allowed them to use greater freedom. Nor was it uncommon for the ancient orators to express the excess of their passions by tears. They thought nothing unbecoming that was natural; and judged it agreeable to the characters even of the bravest men, to be touched with a sense of humanity in great calamities: And therefore we find both Homer and Virgil make their greatest heroes shed tears on some occasions.

The other sort of gestures above-mentioned are such as arise from imitation; as where the orator describes some action, or personates another speaking. But here great care is to be taken not to over act his

part, by running into any ludicrous or theatrical mimicry. It is sufficient for him so to represent things of this nature, as may best convey the image of them in a lively manner to the minds of the hearers; without any such change either of his actions or voice as are not suitable to his own character.

CHAP. IV. *Some particular rules for the Voice and Gesture.*

THE subject of pronunciation is of so great importance to an orator, that it can neither be too clearly laid down, nor too strongly inculcated. If we inquire into the causes of that surprising power it has over us, and by what means it so strongly affects us, this may in some measure appear by reflecting on the frame and constitution of human nature. For our infinitely great and wise Maker has so formed us, that not only the actions of the body are subject to the direction of the mind, but we are likewise endowed with various passions and affections, that excite us to pursue those things which make for our happiness, and avoid others which are hurtful to us. And as we are made for society, we are also furnished with speech, which enables us to converse one with another. And such is the contrivance of our make, and influence of our minds upon the mechanism of our bodies, that we can not only communicate our thoughts to each other, but likewise our passions. For, as Cicero well observes, "Every motion of the mind has naturally its peculiar countenance, voice, and gesture; and the whole body, every position of the face, and sound of the voice, like the strings of an instrument, act agreeably to the impression they receive from the mind." Nor is this all: but as every one is differently affected himself, he is capable to make the like impressions upon others, and excite them to the same motions which he feels in himself. As when two instruments are set to the same pitch, the strings of the one being touched, produce in the other the like sound. This common sympathy in the human frame shows how necessary it is that an orator should not only in general be well acquainted with the rules of pronunciation, but likewise know how to use them as occasion requires. For a general knowledge of the rules of art is not of itself sufficient to perfect an artist, without a further acquaintance with the particular application of them to their several cases and circumstances. Thus, for instance, it is not enough for an orator to understand all the beauties and ornaments of language, and which of them are suited to form the several kinds of style, unless he can likewise accommodate each of those characters to their proper subject. And so likewise in pronunciation, he ought not only to know the several qualities of the voice, and proper gestures of the body, but also when and where to make use of them. For not only different subjects, but also different parts of the same discourse, and even particular expressions, often require a difference in the manner of pronunciation, both as to the voice and gesture. Having therefore treated on both these parts of pronunciation in general, it may not be amiss now to consider how they are to be applied in each of the two respects last mentioned.

We shall begin with the parts of a discourse, and

Pronunciation. treat of them in their natural order. And here the view and design of the speaker in each of them will easily help us to see the proper manner of pronunciation.

Let us suppose then a person presenting himself before an assembly, in order to make a discourse to them. It cannot be decent immediately to begin to speak so soon as ever he makes his appearance. He will first settle himself, compose his countenance, and take a respectful view of his audience. This prepares them for silence and attention. To begin presently, and hurry on, without first allowing either himself or his hearers time to compose themselves, looks as if he was rather performing a task than had any design to please them; which will be very apt to make them as uneasy till he has done, as he seems to be himself. Persons commonly form some opinion of a speaker from their first view of him, which prejudices them either in his favour, or otherwise, as to what he says afterwards. A grave and sedate aspect inclines them to think him serious; that he has considered his subject, and may have something to offer worth their attention. A haughty and forbidding air occasions distaste, as it looks like disrespect. A wandering giddy countenance argues levity. A dejected drooping appearance is apt to raise contempt, unless where the subject is melancholy. And a cheerful aspect is a proper prelude to a pleasant and agreeable argument.

To speak low at first has the appearance of modesty, and is best for the voice; which, by rising gradually, will with more ease be carried to any pitch that may be afterwards necessary, without straining it. However, some variation of the voice is always proper to give it an harmony. Nay, and sometimes it is not improper for an orator to set out with a considerable degree of warmth, expressed by such an elevation of the voice, and gestures of the body, as are suited to represent the emotions of his mind. But this is not ordinarily the case. We have some few instances of this in Cicero; as in his oration for Roscius Amerinus, where the heinousness of the charge could not but excite his indignation against the accusers. And so likewise in that against Piso, and the two first against Catiline, which begin in the same manner, from the resentment he had conceived against their persons and conduct.

In the narration, the voice ought to be raised to somewhat an higher pitch. Matters of fact should be related in a very plain and distinct manner, with a proper stress and emphasis laid upon each circumstance, accompanied with a suitable address and motions of the body, to engage the attention of the hearers. For there is a certain grace in telling a story, by which those who are masters of it seldom fail to recommend themselves in conversation. The beauty of it consists in an easy and familiar manner of expression, attended with such actions and gestures as are suited to the nature of the things related, and help to enliven each particular circumstance and part of the discourse.

The proposition, or subject of the discourse, should be delivered with a very clear and audible voice. For if this be not plainly heard, all that follows in proof of it cannot well be understood. And for the same reason, if it be divided into several parts or branches, they should each be expressed very deliberately and di-

stinately. But as the design here is only information, there can be little room for gesture. *Pronunciation.*

The confirmation admits of great variety both of the voice and gestures. In reasoning, the voice is quick and pungent, and should be enforced with suitable actions. And as descriptions likewise have often a place here, in painting out the images of things, the orator should so endeavour to adapt both his voice, and the motions of his body, particularly the turn of his eyes, and action of his hands, as may best help the imagination of his hearers. Where he introduces another person speaking, or addresses to an absent person, it should be with some degree of imitation. And in dialogue the voice should alter with the parts. When he diverts from his subject by any digression, his voice should be lively and cheerful; since that is rather designed for entertainment than instruction.

In confutation, the arguments of the adverse party ought first to be repeated in a plain and distinct manner, that the speaker may not seem to conceal, or avoid the force of them. Unless they appear trifling and unworthy of a serious answer; and then a facetious manner, both of expression and gesture, may be the properest way to confute them. For to attempt to answer in a grave and serious manner, what is in itself empty and ludicrous, is apt to create a suspicion of its having more in it than it really has. So when Tubero, in his accusation of Ligarius before Cæsar, had made it part of his charge, that Ligarius was in Africa during some part of the civil war between Cæsar and Pompey; Cicero in his answer, not thinking it deserved a serious reply, contents himself with barely mentioning it ironically. For thus he begins his defence of Ligarius: "Cæsar, my kinsman Tubero has laid before you a new crime, and till this day unheard of, that Q. Ligarius was in Africa." Every one must easily perceive, by the manner in which these words were pronounced, that the design of them was to make the charge appear ridiculous. But caution should be used not to represent any argument of weight in a ludicrous way, lest by so doing the speaker should more expose himself than his adversary.

In the conclusion, both the voice and gesture should be brisk and sprightly, which may seem to arise from a sense of the speaker's opinion of the goodness of his cause, and that he has offered nothing but what is agreeable to reason and truth; as likewise from his assurance that the audience agree with him in the same sentiments. In every undertaking that requires care and thought, persons are apt at first to be sedate and moderate; but when it is drawn to an end, and is near finished, it is very natural to appear more gay. If an enumeration of the principal arguments of the discourse be convenient, as it sometimes is, where they are pretty numerous, or the discourse is long, they ought to be expressed in the most clear and forcible manner. And if there be an address to the passions, both the voice and gesture must be suited to the nature of them, of which more will be said presently.

We proceed now to the consideration of particular expressions. And what we shall offer here, will be first in relation to single words, then sentences, and lastly the passions.

I. Even in those sentences which are expressed in the

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the most even and sedate manner, there is often one or more words which require an emphasis and distinction of the voice. Pronouns are often of this kind; as, *This is the man*. And such are many words that denote the circumstances and qualities of things. Such as heighten or magnify the idea of the thing to which they are joined, elevate the voice; as *noble, admirable, majestic, greatly*, and the like. On the contrary, those which lessen the idea, or debase it, depress the voice, or at least protract the tone; of which sort are the words *little, mean, poorly, contemptible*, with many others. Some tropes likewise, as metaphors and verbal figures, which consist in the repetition of a single word, should have a particular emphasis. As when Virgil says of the river Araxes, *It disdained a bridge*. And Nisus of himself, in the same poet, *I, I am the man*; where the repeated word is loudest. This distinction of words, and giving them their proper emphasis, does not only render the expression more clear and intelligible, but very much contributes to the variation of the voice, and the preventing a monotony. And the different pronunciation of these words will also require a peculiar gesture.

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II. In sentences, regard should be had to their length, and the number of their parts, in order to distinguish them by proper pauses. The frame and structure of the period ought likewise to be considered, that the voice may be so managed as to give it the most musical accent. Unless there be some special reason for the contrary, it should end louder than it begins. And this difference of tone between the end of the former sentence and the beginning of the next, not only helps to distinguish the sense, but adds to the harmony of the voice. And that the last syllables of a sentence might become more audible and distinct, was doubtless one reason why the ancient rhetoricians dislike short feet at the end of a period. In an antithesis, or a sentence consisting of opposite parts, one contrary must be louder than the other. As, "*He is gone, but by a gainful remove, from painful labour to quiet rest; from unquiet desires to happy contentment: from sorrow to joy; and from transitory time to immortality.*" In a climax or gradation, the voice should rise with it. So, "*There is no enjoyment of property without government; no government without a magistrate; no magistrate without obedience; no obedience where every one acts as he pleases.*" And so in other gradations of a different form. As, "*Since concord was lost, friendship was lost, fidelity was lost, liberty was lost, all was lost.*" And again, "*You would pardon him whom the senate hath condemned, whom the people of Rome have condemned, whom all mankind have condemned.*" We might mention several other figurative expressions, which require a particular conformation and management of the voice; but these, we presume, with some others we shall have occasion to name presently when we come to the passions, may be sufficient to guide us in the rest. But that it may appear more evidently how necessary a different inflection and variation of the voice is in most sentences, give us leave to show how Quintilian illustrates it, by a passage which he takes from Cicero. The place is the beginning of Cicero's defence for Milo, and the words are these: "*Although I am apprehensive it may seem base to discover fear when I enter upon the defence of a most courageous*

man, and it may appear very indecent, when Milo discovers more concern for the public safety than for his own, not to show a greatness of mind equal to his cause, yet this new form of the court terrifies my eyes, which cannot discern the ancient manner of the forum, and former custom of trials, whatever way they look: your bench is not surrounded with its usual attendants." This sentence consists of four members. And Quintilian supposes, that though these words are the beginning of a speech, and were accordingly expressed in a calm and submissive manner, yet that the orator used a great deal of variety in the pronunciation of their several parts. In the first member (as he imagines) his voice was more elevated in expressing the words, *a most courageous man*, than in those other parts of it, *I am apprehensive it may seem base*, and, *to discover fear*. In the second member he rose higher, in saying *when Milo discovers more concern for the public safety than for his own*; and then again, as it were, checked himself in what follows, *not to show a greatness of mind equal to his cause*. The beginning of the third member, carrying a reflection in it, was spoke with a different tone of the voice, *this new form of the court terrifies my eyes*; and the other part of it more loud and distinctly, *which cannot discern the ancient manner of the forum, and former custom of trials*. And the last member was still more raised and audible, *your bench is not surrounded with its usual attendants*. And it must be supposed, that while he was saying this, he cast his eyes round the assembly, and viewed the soldiers whom Pompey had placed there, which renders the expression still more grave and solemn. If this was the manner of the ancient orators, and they were so exact and accurate in expressing their periods, and the several parts of them, as we have reason to believe they were, it must have given a very great force, as well as beauty, to their pronunciation.

III. That the passions have each of them both a different voice and action, is evident from hence; that we know in what manner a person is affected, by the tone of his voice, though we do not understand the sense of what he says, or many times so much as see him; and we can often make the same judgment from his countenance and gestures. Love and esteem are expressed in a smooth and cheerful tone: but anger and resentment, with a rough, harsh, and interrupted voice; for when the spirits are disturbed and ruffled, the organs are moved unequally. Joy raises and dilates the voice, as sorrow sinks and contracts it. Cicero takes notice of a passage in an oration of Gracchus, wherein he bewails the death of his brother, who was killed by Scipio, which in his time was thought very moving: "*Unhappy man (says he), whither shall I betake myself? where shall I go? Into the capitol? that flows with my brother's blood. Shall I go home? and behold my unhappy mother all in tears and despair?*" Though Gracchus had a very ill design in that speech, and his view was to excite the populace against their governors, yet (as Cicero tells us) when he came to this passage, he expressed himself in such moving accents and gestures, that he extorted tears even from his enemies. Fear occasions a tremor and hesitation of the voice, and assurance gives it strength and firmness. Admiration elevates the voice, and should be expressed with pomp and magnificence: O surprising

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Pronunciation. *surprising clemency, worthy of the highest praise and greatest encomiums, and fit to be perpetuated in lasting monuments!*

This is Cicero's compliment to Cæsar, when he thought it for his purpose. And oftentimes this passion is accompanied with an elevation both of the eyes and hands. On the contrary, contempt sinks and protracts the voice. In the dispute between Cicero and Cecilius, which of them should accuse Verres, Cicero puts this contemptuous question to him: "How are you qualified, Cecilius, for such an undertaking? I will not ask, when you ever gave a proof of it; but when you so much as attempted it? Do you consider the difficulty of managing a public cause?" with much more to the same purpose. Though such kind of expressions require little gesture, yet sometimes a motion of the hand may not be improper, to signify disdain or aversion. We may suppose Cicero to have acted thus in his defence of Rabirius. For to show his assurance of his client's cause, having used this expression in a very audible manner, "I wish I had it to say, that Rabirius had with his own hand killed Saturninus, who was an enemy to the Roman state," some persons in the crowd began to raise a clamour, just as of later times hissing has been practised on the like occasions. Upon which Cicero immediately replies, "This noise does not disturb me, but please me, since it shows, though there are some weak persons, yet they are but few." Then presently after follows the expression we refer to: "Why do not you cease your clamour, since it only discovers your folly, and the smallness of your number?" All exclamations

Pronunciation. should be violent. When we address to inanimate things, the voice should be higher than when to animated beings; and appeals to heaven must be made in a loftier tone than those to men.

These few hints for expressing the principal passions may, if duly attended to, suffice to direct our practice in others. Though, after all, it is impossible to gain a just and decent pronunciation of voice and gesture merely from rules, without practice and an imitation of the best examples. Which shows the wisdom of the ancients, in training up their youth to it, by the assistance of masters, to form both their speech and actions.

But there is one thing which ought always to be attended to; namely, that persons should well consider their own make and genius, especially with respect to the passions. We seldom find, that any actor can excel in all characters; but if he performs one well, he is deficient in another: And therefore they are commonly so prudent as to confine themselves to such as best suit them. The case is the same in an orator; who should therefore keep within those bounds which nature seems to have prescribed for him. Some are better fitted for action than others, and most for some particular actions rather than others; and what fits well upon one would appear very awkward in another. Every one, therefore, should first endeavour to know himself, and manage accordingly. Though in most cases, nature may be much assisted and improved by art and exercise. See Professor Ward's *System of Oratory*.

O R A

Oratory
Orchard.

ORATORY, among the Romanists, a closet or like apartment near a bed-chamber, furnished with an altar, crucifix, &c. for private devotions.

ORB, in astronomy, denotes an hollow globe or sphere.

ORB, in tactics, is the disposing of a number of soldiers in circular form of defence. The orb has been thought of consequence enough to employ the attention of the famous marshal de Puysegur in his art of war, who prefers this position to throw a body of infantry in an open country, to resist cavalry, or even a superior force of infantry; because it is regular, and equally strong, and gives an enemy no reason to expect better success by attacking one place than another. Cæsar drew his whole army in this form, when he fought against Labienus. The whole army of the Gauls were formed into an orb, under the command of Sabinus and Cotta, when fighting against the Romans. The orb was generally formed six deep.

ORBIT, in astronomy, the path of a planet or comet, or the curve that it describes in its revolution round its central body; thus, the earth's orbit is the curve which it describes in its annual course round the sun, and usually called the *ecliptic*. See *ASTRONOMY*, *passim*.

ORCADES, the *Orkney Islands*. See *ORKNEY*.

ORCHARD, a garden-department, consigned entirely to the growth of standard fruit-trees, for furnishing a large supply of the most useful kinds of fruit.

In the orchard you may have, as standards, all sorts

O R C

Orchard. of apple-trees, most sorts of pears and plums, and all sorts of cherries: which four species are the capital orchard fruits; each of them comprising numerous valuable varieties. But to have a complete orchard, you may also have quinces, medlars, mulberries, service-trees, filberts, Spanish nuts, berberries; likewise walnuts and chesnuts; which two latter are particularly applicable for the boundaries of orchards, to screen the other trees from the insults of impetuous winds and cold blasts. All the trees ought to be arranged in rows from 20 to 30 feet distance, as hereafter directed.

But sometimes orchards consist entirely of apple-trees, particularly in the cyder-making counties, where they are cultivated in very great quantities in large fields, and in hedge-rows, for the fruit to make cyder for public supply.

And sometimes whole orchards of very considerable extent are entirely of cherry-trees. But in this case, it is when the fruit is designed for sale in some great city, as London, &c. for the supply of which city, great numbers of large cherry-orchards are in some of the adjacent counties, but more particularly in Kent, which is famous for very extensive cherry-orchards; many of which are entirely of that sort called *Kentish-cherry*, as being generally a great bearer; others are stored with all the principal sorts of cultivated cherries, from the earliest to the latest kinds. See *PRUNUS Cerasus*.

A general orchard, however, composed of all the before-mentioned fruit-trees, should consist of a double portion.

Orchard portion of apple-trees or more, because they are considerably the most useful fruit, and may be continued for use the year round.

The utility of a general orchard, both for private use and profit, stored with the various sorts of fruit-trees, must be very great, as well as afford infinite pleasure from the delightful appearance it makes from early spring till late in autumn: In spring the various trees in blossom are highly ornamental; in summer, the pleasure is heightened by observing the various fruits advancing to perfection; and as the season advances, the mature growth of the different species arriving to perfection, in regular succession, from May or June, until the end of October, must afford exceeding delight, as well as great profit.

Of the proper Extent, Situation, and Soil for this Department.] As to the proper extent of ground for an orchard, this must be proportioned, in some measure, to the extent of land you have to work on, and the quantity of fruit required either for private use or for public supply: so that an orchard may be from half an acre to 20 or more in extent.

With respect to the situation and aspect for an orchard, we may observe very thriving orchards both in low and high situations, and on declivities and plains, in various aspects or exposures, provided the natural soil is good: we should, however, avoid very low damp situations as much as the nature of the place will admit; for in very wet soils no fruit trees will prosper, nor the fruit be fine: but a moderately low situation, free from copious wet, may be more eligible than an elevated ground, as being less exposed to tempestuous winds; though a situation having a small declivity is very desirable, especially if its aspect incline towards the east, south-east, or southerly, which are rather more eligible than a westerly aspect; but a north aspect is the worst of all for an orchard, unless particularly compensated by the peculiar temperament or good quality of the soil.

And as for soil, any common field or pasture that produces good crops of corn, grass, or kitchen-garden vegetables, is suitable for an orchard; if it should prove of a loamy nature, it will be a particular advantage: any soil, however, of a good quality, not too light and dry, or too heavy, stubborn, or wet, but of a medium nature, of a soft, pliant temperature, not less than one spade deep of good staple, will be proper for this purpose.

Preparation of the Ground.] The preparation of the ground for the reception of trees, is by trenching; or, if for very considerable orchards, by deep ploughing; but trench-digging, one or two spades, as the soil will admit, is the most eligible, either wholly, or only for the present in the places where the lines of trees are to stand, a space of six or eight feet wide, all the way in each row, especially if it be grass-ground, and intended to be kept in the sward; or if any under-crops are designed to be raised, the ground may be wholly trenched at first: in either case trench the ground in the usual way to the depth of the natural soil; and if in grass, turn the sward clean to the bottom of each trench, which, when rotted, will prove an excellent manure.

In planting orchards, however, on grass-grounds, some only dig pits for each tree, capacious enough for
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the reception of the roots, loosening the bottom well, without the labour of digging any other part of the ground.

The ground must be fenced securely against cattle, &c. either with a good ditch and hedge, or with a paling-fence, as may be most convenient. See HEDGES.

Method of planting the Trees.] The best season for planting all the sorts of fruit-trees is autumn, soon after the fall of the leaf, from about the latter end of October until December; or indeed it might be performed any time in open weather from October until March.

Choose principally full standards, with straight clean stems, six feet high; each with a branchy well-formed head, or from two or three to four or five years growth; and let several varieties of each particular species be chosen, that ripen their fruit at different times, from the earliest to the latest, according to the nature of the different sorts, that there may be a proper supply of every sort regularly during their proper season. Of apples and pears in particular, choose a much greater quantity of the autumnal and late-ripening kinds than of the early sorts; but most of all of apples: for the summer-ripening fruit is but of short duration, only proper for temporary service; but the later ripening kinds keep sound some considerable time for autumnal use; and the latest sorts that ripen in October, continue in perfection for various uses all winter, and several sorts until the season of apples come again.

Having made choice of the proper sorts, and marked them, let them be taken up with the utmost care, so as to preserve all their roots as entire as possible; and when taken up, prune off any broken or bruised parts of the roots, and just tip the ends of the principal roots, in general, with the knife on the under side, with a kind of slope outward.

If the trees have been already headed, or so trained as to have branched out into regular shoots to form each a proper head, they must be planted with the said heads entire, only retrenching or shortening any irregular or ill-placed shoot that takes an awkward direction, or grows across its neighbours, or such as may run considerably longer than all the rest, &c.

The arrangement of the trees in the orchard must be in rows, each kind separate, at distances according to the nature of the growth of the different sorts; but for the larger growing kinds, such as apples, pears, plums, cherries, &c. they should stand from 25 to 30 or 40 feet every way asunder, though 25 or 30 feet at most is a reasonable distance for all these kinds.

Each species and its varieties should generally be in rows by themselves, the better to suit their respective modes of growth: though for variety there may be some rows of apples and pears arranged alternately, as also of plums and cherries; and towards the boundaries there may be ranges of lesser growth, as quinces, medlars, filberts, &c. and the outer row of all may be walnut-trees, and some chestnuts, set pretty close to defend the other trees from violent winds.

According to the above distances, proceed to stake out the ground for making the holes for the reception of the trees; which if made to range every way, will have a very agreeable effect, and admit the currency of air, and the sun's influence more effectually.

But in planting very extensive orchards, some divide

Orchard, vide the ground into large squares or quarters, of different dimensions, with intervals of fifty feet wide between; serving both as walks, and for admitting a greater currency of air; in different quarters planting different sorts of fruit, as apples in one, pears in another, and plums and cherries in others, &c. and thus it may be repeated to as many quarters for each species and its varieties as may be convenient.

As to the mode of planting the trees: A wide hole must be dug for each tree, capacious enough to receive all the roots freely every way without touching the sides. When the holes are all ready, proceed to planting, one tree in each hole, a person holding the stem erect, whilst another trims in the earth, previously breaking it small, and casting it in equally all about the roots, frequently shaking the tree to cause the mould to settle in close about all the smaller roots and fibres, and so as to raise the tree gradually up, that the crown of the roots may be but two or three inches below the general surface; and when the hole is filled up, tread it gently, first round the outside, then near the stem of the tree, forming the surface a little hollow; and then if on the top of all is laid some inverted turf to the width of the holes, forming it with a sort of circular bank, three or four inches high, it will support the tree, and guard the roots from drying winds and the summer's drought: observing that each tree stand perfectly upright, and that they range exactly in their proper rows.

ORCHESTON ST MARY'S, on Salisbury plain in Wiltshire, about nine miles from Salisbury. There is a curious species of grass found at this place in a meadow belonging to Lord Rivers, at present in the possession of a farmer.

The meadow is situated on a small brook, is frequently overflowed, and sometimes continues so a great part of the winter. It bears the greatest burden in a wet season.

We have the following account of this peculiar species of grass in Letters and Papers in Agriculture, &c. The farmer in whose possession the meadow is, informs us, "That it generally grows to the height of about 18 inches, and then falls and runs along the ground in knots to the length of 16 or 18 feet, but that he has known instances of its running to the length of 25 feet.

"The meadow contains about two acres and a half. It is mowed twice in a season, and the average quantity is generally about twelve loads (tons) of hay the first mowing, and six the second; though sometimes considerably more. The tithe of the meadow has been compounded for at 9l. a year. The grass is of a very sweet nature; all cattle, and even pigs, eat it very eagerly. When made into hay, it is excellent, and improves beasts greatly. The farmer says, his horses will eat it in preference to corn mixed with chaff, when both are set before them together."

"This account appeared to us so singular, and the crop of grass so very extraordinary, that our secretary went to Orcheston to examine more particularly into it. The farmer, and divers other persons in the village, confirmed the account contained in this letter, of its amazing produce in summers when the meadows had been overflowed in the preceding winter and spring; but when the winter had been dry, and the

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meadow not overflowed, the crop of grass was not near so large. There did not appear to be any thing peculiar in the soil; nor were the other plants or weeds growing on it more luxuriant than in many other similar situations. Some of this grass was sent to the society at Norwich; some ingenious members of which inform us, that they think it is a species of the *agrostis polymorpha*, mentioned by Hudson in his *Flora Anglica*, of which there are several varieties.

"Camden mentions, in his *Britannia*, a grass growing near the place where this is found, which he calls *trailing Dog's grass*, and says, that 'hogs were fed with it.'

"From all the inquiry made, we have not found this species of grass growing in any other part of the kingdom; hence it is possible that there may be something in the soil of this meadow peculiarly favourable to its growth. We shall not, however, determine on this point, but recommend trials to be made of propagating it, by sowing the seed in other places subject to be overflowed in the same manner. If it can be propagated generally, it must turn out the most profitable to the farmer of any grass yet discovered, and be of great benefit to the community."

We have this further account of it in the Gentleman's Magazine for March 1782: "The first notices of the Orcheston or Maddington grass, as far as I can find, are to be met with in Dr How's *Philologia Britannica*, printed in 1650, where it is called '*Gramen caninum supinum longissimum non descriptum*', and is said to grow nine miles from Salisbury, by Mr Tucker's at Maddington, wherewith they fatten hogs, and which is 24 feet long; and which', the author adds, 'may happily be a kind of *gramen caninum supinum*, though Gerard Englishes it *upright dog's grass*.' Mr Stonehouse, p. 26. I have not been able to ascertain the residence of Mr Stonehouse, who seems to have been the first that made the knowledge of this grass public. He is mentioned several times in Ray's *Synopsis Stirpium*; but I can find no anecdotes relative to him. Dr How's account is taken into Merret's *Pinax*, printed in 1667, the author having added, that 'this grass is also found in some parts of Wales.' Mr Ray mentions it from both these authors, in his *Catalogus Plantarum Angliæ*, 1670; and refers to Fuller's *Worthies* for a farther account of it, which work was printed in 1662. It does not appear that Ray had any opportunity of examining this remarkable production, since he has not introduced it into his *Synopsis*, in either of the editions which were published in his lifetime; and in the list of Wiltshire plants printed in Camden's *Britannia*, he recommends it to the inquiry of the industrious herbalists of that country. Dr Dillenius afterwards introduced it into the *Indiculus plantarum dubiarum*, subjoined to the third edition of Ray's *Synopsis*.

"Since the spirit of improvement in agriculture has been excited of late years, the curiosity of the public has been raised relating to it, but the species was not sufficiently determined. It has been thought by some to be the *alopecurus geniculatus*, or *stote fox-tail grass*, of Hudson's *Flora Angl.* 2d edit. p. 27. by others to be the *agrostis stolonifera*, or *creeping bent-grass*, ib. p. 31. See *The Farmer's Magazine* for 1778, p. 232, 259, 289, 290.

"Being very desirous of having this matter cleared

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Orcheston
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Orchis.

np, I procured in July last, from the farmer himself at Maddington, a bundle of this grass when it was in spike; and by this means I found it to be no other than the *tritium repens*, Hudson, p. 57. or *common dogs grass*, *quick-grass*, or *couch-grass*, in a most luxuriant state of growth. The length of the culm is greatly influenced by the nature of the seasons. Its place of growth is in a meadow that is covered with water during the greatest part of the winter and spring. In this inundated soil it acquires a length of stalk, a succulency, and vigour, which are indeed very surprising. Of the bundle that was sent to me, most of the plants were seven feet long, and many of the spikes or ears contained 38 and 40 glumes, or flower-bearing husks; whereas the plant in common does not contain more than half that number: and it was said by the people of that neighbourhood to have been a very unfavourable season for this grass.

"That the above-mentioned species is the grass which at this time constitutes the bulk of that astonishing crop which we read of, is to me sufficiently ascertained; but whether, ever since the first notice of this grass, this species alone has been the cultured one in this situation, I do not decide, but think it a matter worthy of further investigation; since it should seem that the soil and situation are in a peculiar manner adapted to certain plants of the graminous tribe. I observed that a plant or two of the *phalaris arundinacea*, or *reed Canary grass*, Hudson, p. 23. which by accident were sent with the above-mentioned grass, exceeded in the thickness and succulency of the stalk the ordinary size, and were also equal to the dogs grass in length."

These extracts we thought it our duty to lay before our readers; and we have done it without any observation or comment of our own; because we wish to give them every information which is either curious or may be useful: and with this we rest satisfied, not wishing to obtrude our remarks, where, from the scantiness of information or the doubtfulness of the case, they cannot be made with confidence.

ORCHESTRA, in the Grecian theatres, was that part of the *proscenium* or stage where the chorus used to dance. In the middle of it was placed the *δῶριον* or *pulpit*. The orchestra was semicircular, and surrounded with seats. In the Roman theatres it made no part of the *scena*, but answered pretty nearly to the pit in our playhouses, being taken up with seats for senators, magistrates, vestals, and other persons of distinction. The actors never went down into it. See THEATRE.

ORCHIA LEX, instituted by Orchius the tribune in the year of Rome 566. Its intention was to limit the number of guests that were to be admitted at an entertainment; and it also enforced, that during supper, which was the chief meal among the Romans, the doors of every house should be left open.

ORCHIS, FOOL-STONES: A genus of the diandria order, belonging to the gynandria class of plants; and in the natural method giving name to the seventh order, *Orchideæ*. Its characters are these: It has a single stalk, with a vague sheath, and no empalement; the flower hath five petals, three without and two within; the nectarium is of one leaf, fixed to the side of the

receptacle, between the division of the petals; the upper lip is short and erect, the under large, broad, and spreading; the tube is pendulous, corniform, or like a horn, and prominent behind; it hath two short slender stamina, sitting upon the pointil, with oval erect summits, fixed to the upper lip of the nectarium; it hath an oblong contorted germen, under the flower, with a short style, fastened to the upper lip of the nectarium; the germen afterwards turns to an oblong capsule, with one cell, having three keel-shaped valves, opening on the three sides, but jointed at top and bottom, filled with small seeds like dust. Miller enumerates 10, and Linnæus 33 species.

All those sorts of orchis described by Miller grow wild in several parts of England, but on account of the extreme oddness and beauty of their flowers, deserve a place in every good garden; and the reason of their not being cultivated in gardens, proceeds from the difficulty of transplanting them: though this may be easily overcome, where a person has an opportunity of marking their roots, in their time of flowering, and letting them remain until their leaves are decayed, when they may be transplanted with safety; for it is the same with most sorts of bulbous or fleshy-rooted plants, which, if transplanted before their leaves decay, seldom live, notwithstanding you preserve a large ball of earth about them; for the extreme parts of their fibres extend to a great depth in the ground, from whence they receive their nourishment, which if broken or damaged by taking up their roots, seldom thrive after; for though they may sometimes remain alive a year or two, yet they grow weaker until they quite decay; which is also the case with tulips, fritillarias, and other bulbous roots. But if their soil and situation be adapted to their various sorts, they will thrive and continue several years, and during their season of flowering will afford as great varieties as any flowers which are at present cultivated.

The most remarkable species are the following:
1. The mascula, or male fool-stones, hath a root composed of two bulbs, crowned with oblong, broad, spotted leaves; upright stalks, a foot high; garnished with one or two narrow amplexicaule leaves; and terminated by a long spike of reddish purple flowers, having the petals reflexed backward; a quadrilobed crenated lip to the nectarium, and an obtuse horn. The flowers of this species possess a very agreeable odour. The orchis mascula, Lin. sp. pl. is the most valuable; although the roots of some of the palmated sorts, particularly of the orchis latifolia, are found to answer almost equally well.

2. The morio, or female orchis, hath a double bulbous root, crowned with oblong, ribbed, spreading leaves; erect flower-stalks, eight or ten inches high; garnished with a few amplexicaule leaves; and terminated by a short loose spike of flowers, having connivent petals, a quadrifid crenated lip to the nectarium, and an obtuse horn.

3. The militaris, or man-orchis, hath a double bulbous root, crowned with oblong amplexicaule leaves; erect flower-stalks, eight or ten inches high; terminated by a loose spike of ash-coloured and reddish flowers, having confluent petals; a quinquefid, rough, spotted lip to the nectarium, and an obtuse horn. The structure

Orchis.

Plater
CCCCXIX.

Orchis structure of the flowers exhibit the figure of a naked man; and are often of different colours in the same flower, as ash colour, red, brown, and dark-striped.

Ordeal.

Culture and Properties. All the orchises are very hardy perennials, with bulbous fleshy roots. The flowers appear in May, June, and July, but principally in June: their mode of flowering is universally in spikes, many flowers in each spike; and each flower is composed of five petals in two series, and a nectarium. The season for removing them is in summer, after they have done flowering, when their leaves and stalks decay: plant them three inches deep, and let them remain undisturbed several years; for the less they are removed, the stronger they will flower.

The roots of all the species have a remarkable resemblance to the scrotum of animals, whence the name. This plant flourishes in various parts of Europe and Asia, and grows in our country spontaneously, and in great abundance. It is assiduously cultivated in the East; and the root of it forms a considerable part of the diet of the inhabitants of Turkey, Persia, and Syria. From it is made the alimentary powder called *SALEP*; which, prepared from foreign roots, is sold at five or six shillings per pound, though it might be furnished by ourselves at the sixth part of that price, if we chose to pay any attention to the culture of this plant. The orchis mascula is the most valued for this purpose. A dry and not very fertile soil is best adapted to its growth.

The properest time for gathering the roots, is when the seed is formed, and the stalk is ready to fall; because the new bulb, of which the salep is made, is then arrived to its full maturity, and may be distinguished from the old one, by a white bud rising from the top of it, which is the germ of the orchis of the succeeding year.

The culture of the orchis is an object highly deserving of encouragement from all the lovers of agriculture. And as the root, if introduced into common use, would furnish a cheap, wholesome, and most nutritious article of diet, the growth of it would be sufficiently profitable to the farmer. See *SALEP*.

ORCUS, god of the infernal regions, the same with Pluto, so called from the Greek word *ορχος*, signifying a "tomb or sepulchre," or from *ορχος* "an oath by the river Styx." The ancients gave this name to all the divinities of the infernal regions, even to Cerberus. There was a river of the same name in Thessaly, which took its rise from the marshes of the Styx, and the waters of which were so thick that they floated like oil upon the surface of the river Peneus, into which they discharged themselves. This river probably suggested to the poets the idea of the infernal abodes, which they denominated *Orcus*. This deity has been confounded with Charon: he had a temple at Rome.

ORDEAL, an ancient form of trial. See *TRIAL*.

—It was an appeal to the immediate interposition of

divine power, and was peculiarly distinguished by the appellation of *judicium Dei*; and sometimes *vulgaris purgatio*, to distinguish it from the canonical purgation, which was by the oath of the party. There were two sorts of it more common than the rest, at least in Europe, fire-ordeal, and water-ordeal. The former was confined to persons of higher rank, the latter to the common people. Both these might be performed by deputy: but the principal was to answer for the success of the trial; the deputy only venturing some corporal pain, for hire or perhaps for friendship.

That the purgation by ordeal, of some one kind or other, is very ancient, admits not of a doubt; and that it was very universal in the times of superstitious barbarity, is equally certain. It seems even to have been known to the ancient Greeks: for in the *Antigone* of Sophocles, a person suspected by Creon of a misdemeanor, declares himself ready "to handle hot iron and to walk over fire" in order to manifest his innocence; which the scholiast tells us was then a very usual purgation. And Grotius gives us many instances of water-ordeal in Bithynia, Sardinia, and other places. It seems, however, to be carried to a greater height among the Hindoos, than ever it has been in any nation or among any people however rude or barbarous; for in a paper of the Asiatic Researches communicated by the celebrated Warren Hastings, Esq; we find that the *trial by ordeal* among them is conducted in nine different ways: first, by the balance; secondly, by fire; thirdly, by water; fourthly, by poison; fifthly, by the *Cosha*, or water in which an idol has been washed; sixthly, by rice; seventhly, by boiling oil; eighthly, by red-hot iron; ninthly, by images.

I. Ordeal by the balance is thus performed. The beam having been previously adjusted, the cord fixed, and both scales made perfectly even, the person accused and a Pandit fast a whole day; then, after the accused has been bathed in sacred water, the *homa*, or oblation, presented to fire, and the deities worshipped, he is carefully weighed; and, when he is taken out of the scale, the Pandits prostrate themselves before it, pronounce a certain *mentra* or incantation, agreeably to the *Sastras*, and, having written the substance of the accusation on a piece of paper, bind it on his head. Six minutes after, they place him again in the scale; and, if he weigh more than before, he is held guilty; if less, innocent; if exactly the same, he must be weighed a third time; when, as it is written in the *Mitashera*, there will certainly be a difference in his weight. Should the balance, though well fixed, break down, this would be considered as a proof of his guilt.

II. For the fire-ordeal, an excavation, nine hands long, two spans broad, and one span deep, is made in the ground, and filled with a fire of pippal wood: into this the person accused must walk bare footed; and, if his foot be unhurt, they hold him blameless; if burned, guilty (A).

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III.

(A) In Europe fire-ordeal was performed either by taking up in the hand, unhurt, a piece of red-hot iron, of one, two, or three pounds weight; or else by walking, barefoot, and blindfold, over nine red-hot ploughshares, laid lengthwise at unequal distances: and if the party escaped being hurt, he was adjudged innocent; but if it happened otherwise, as without collusion it usually did, he was then condemned as guilty. However, by this latter method Queen Emma, the mother of Edward the Confessor, is mentioned to have cleared

Ordeal.

III. Water-ordeal is performed by causing the person accused to stand in a sufficient depth of water, either flowing or stagnant, to reach his navel; but care should be taken, that no ravenous animal be in it, and that it be not moved by much air: a brahman is then directed to go into the water, holding a staff in his hand; and a soldier shoots three arrows on dry ground from a bow of cane: a man is next dispatched to bring the arrow which has been shot farthest; and, after he has taken it up, another is ordered to run from the edge of the water; at which instant the person accused is told to grasp the foot or the staff of the brahman, who stands near him in the water, and immediately to dive into it. He must remain under water, till the two men, who went to fetch the arrows, are returned; for, if he raise his head or body above the surface, before the arrows are brought back, his guilt is considered as fully proved. In the villages near Benares, it is the practice for the person who is to be tried by this kind of ordeal, to stand in water up to his navel, and then, holding the foot of a brahman, to dive under it as long as a man can walk 50 paces very gently; if, before the man has walked thus far, the accused rise above the water, he is condemned; if not, acquitted (B).

IV. There are two sorts of trial by poison; first, the Pandits having performed their homa, and the person accused his ablution, two *rettis* and a half, or seven barley-corns, of *visbanaga*, a poisonous root, or

of *sane'hya*, that is, white arsenic, are mixed in eight *masbas*, or 64 *rettis*, of clarified butter, which the accused must eat from the hand of a brahman: if the poison produce no visible effect, he is absolved; otherwise, condemned. Secondly, the hooded snake, called *naga*, is thrown into a deep earthen pot, into which is dropped a ring, a seal, or a coin: this the person accused is ordered to take out with his hand; and, if the serpent bite him, he is pronounced guilty; if not, innocent.

V. Trial by the *cosha* is as follows: the accused is made to drink three draughts of the water, in which the images of the sun, of *devi*, and other deities, have been washed for that purpose; and if, within 14 days, he has any sickness or indisposition, his crime is considered as proved.

VI. When several persons are suspected of theft, some dry rice is weighed with the sacred stone called *salgram*, or certain *slocas* are read over it; after which the suspected persons are severally ordered to chew a quantity of it: as soon as they have chewed it, they are to throw it on some leaves of *pippal*, or, if none be at hand, on some *b'burja patra*, or bark of a tree from Nepal or Cashmir. The man, from whose mouth the rice comes dry or stained with blood, is holden guilty; the rest are acquitted.

VII. The ordeal by *hot oil* is very simple: when it is heated sufficiently, the accused thrusts his hand into it; and, if he be not burned, is held innocent (C).

VIII

ed her character, when suspected of familiarity with Alwyn bishop of Winchester. The first account we have of Christians appealing to the fire-ordeal, as a proof of their innocence, is that of Simplicius, bishop of Autun, who lived in the fourth century. This prelate, as the story is related, before his promotion to the episcopal order, had married a wife, who loved him tenderly, and who, unwilling to quit him after his advancement, continued to sleep in the same chamber with him. The sanctity of Simplicius suffered, at least in the voice of fame, by the constancy of his wife's affection; and it was rumoured about, that the holy man, though a bishop, persisted, in opposition to the ecclesiastical canons, to taste the sweets of matrimony: upon which his wife, in the presence of a great concourse of people, took up a considerable quantity of burning coals, which she held in her cloaths, and applied to her breasts, without the least hurt to her person or her garments, as the legend says; and her example being followed by her husband with the like success, the silly multitude admired the miracle, and proclaimed the innocence of the loving pair. A similar trick was played by St Brice, in the fifth century. *Moss. Eccl. Hist.* v. 2.

(B) A very peculiar species of water-ordeal is said to prevail among the Indians on the coast of Malabar. A person accused of an enormous crime is obliged to swim over a large river abounding with crocodiles; and if he escapes unhurt, he is esteemed innocent.

At Siam, besides the usual methods of fire and water ordeal, both parties are sometimes exposed to the fury of a tiger let loose for that purpose; and if the beast spares either, that person is accounted innocent; if neither, both are held to be guilty; but if he spares both, the trial is incomplete, and they proceed to a more certain criterion.

In Europe water-ordeal was performed, either by plunging the bare arm up to the elbow in boiling-water, and escaping unhurt thereby, or by casting the person suspected into a river or pond of cold water; and if he floated therein without any action of swimming, it was deemed an evidence of his guilt; but if he sunk, he was acquitted. It is easy to trace out the traditional relics of this water-ordeal, in the ignorant barbarity still practised in many countries to discover witches, by casting them into a pool of water, and drowning them to prove their innocence. And in the Eastern empire the fire-ordeal was used for the same purpose by the emperor Theodore Lascaris; who, attributing his sickness to magic, caused all those whom he suspected to handle the hot iron: thus joining (as has been well remarked) to the most dubious crime in the world, the most dubious proof of innocence.

(C) This species of trial by ordeal is thus performed: The ground appointed for the trial is cleared and rubbed with cow-dung; and the next day at sun-rise the *Pandit* worships *Ganésa* or the Hindoo Janus, presents his oblations, and pays adoration to other deities, conformably to the *Sastra*: then having read the incantation prescribed, he places a round pan of gold, silver, copper, iron, or clay, with a diameter of sixteen fingers, and four fingers deep; and throws into it one *ser*, or eighty *sicca* weight, of clarified butter or oil of *sesamum*. After this a ring of gold,

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VIII. In the same manner, they make an *iron ball*, or the *head of a lance*, red-hot, and place it in the hands of the person accused; who, if it burn him not, is judged guiltless.

IX. To perform the ordeal by *dharmārch*, which is the name of the *śloka* appropriated to this mode of trial, either an image, named *Dharma*, or the genius of justice, is made of silver, and another, called *Adharma*, of clay or iron, both of which are thrown into a large earthen jar; and the accused having thrust his hand into it, is acquitted if he bring out the silver image, but condemned if he draw forth the iron; or, the figure of a deity is painted on white cloth, and another on black; the first of which they name *dharmā*, and the second *adharma*: these are severally rolled up in cow-dung, and thrown into a large jar without having ever been shown to the accused; who must put his hand into the jar, and is acquitted or convicted as he draws out the figure on white or on black cloth.

Though we have proceeded thus far, we have not exhausted Mr Hastings's communication. He goes on to show (to greater extent than our limits permit us to follow him) the manner in which each ordeal abovementioned was executed, giving examples, and unfolding other particulars of some importance in developing the nature of these barbarous customs. For these particulars, however, we must refer to the book itself. But as this subject unquestionably occupies an important department in the history of human superstition, we shall give the Indian law of ordeal from the same paper; when we shall introduce some further particulars concerning this extraordinary custom, which are not to be found in the above account, but which deserve to be noticed.

1. The balance, fire, water, poison, the idol—these are the ordeals used here below for the proof of innocence, when the accusations are heavy, and when the accuser offers to hazard a mulct (if he should fail):

2. Or one party may be tried, if he please, by ordeal, and the other must then risk an amercement; but the trial may take place even without any wager, if the crime committed be injurious to the prince.

3. The sovereign, having summoned the accused while his clothes are yet moist from bathing, at sunrise, before he has broken his fast, shall cause all trials by ordeal to be conducted in the presence of *Brāhmans*.

4. The balance is for women, children, old men, the blind, the lame, *Brāhmans*, and the sick; for the *Sūdra*, fire or water, or seven barley-corns of poison.

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5. Unless the loss of the accuser amount to a thousand pieces of silver, the accused must not be tried by the red-hot ball, nor by poison, nor by the scales; but if the offence be against the king, or if the crime be heinous, he must acquit himself by one of those trials in all cases.

6. He who has recourse to the balance must be attended by persons experienced in weighing, and go down into one scale, with an equal weight placed in the other, and a groove (with water in it) marked on the beam.

7. 'Thou, O balance, art the mansion of truth; thou wast anciently contrived by deities: declare the truth, therefore, O giver of success, and clear me from all suspicion.'

8. 'If I am guilty, O venerable as my own mother, then sink me down; but if innocent, raise me aloft.' Thus shall he address the balance.

9. If he sink he is convicted, or if the scales be broken; but if the string be not broken, and he rise aloft, he must be acquitted.

10. On the trial by fire, let both hands of the accused be rubbed with rice in the husk, and well examined: then let seven leaves of the *Aśwattha* (the religious fig-tree) be placed on them, and bound with seven threads.

11. 'Thou, O fire, pervadest all beings; O cause of purity, who givest evidence of virtue and of sin, declare the truth in this my hand.'

12. When he has pronounced this, the priest shall place in both his hands an iron ball, red-hot, and weighing fifty (D) *palas*.

13. Having taken it, he shall step gradually into seven circles, each with a diameter of sixteen fingers, and separated from the next by the same space.

14. If, having cast away the hot ball, he shall again have his hands rubbed with rice in the husk, and shall show them unburned, he will prove his innocence. Should the iron fall during the trial, or should a doubt arise (on the regularity of the proceedings), he must be tried again.

15. 'Preserve me, O Varuna, by declaring the truth.' Thus having invoked the god of waters, the accused shall plunge his head into the river or pool, and hold both thighs of a man, who shall stand in it up to his navel:

16. A swift runner shall then hasten to fetch an arrow shot at the moment of his plunging; and if, while the runner is gone, the priest shall see the head of

gold, or silver, or iron, is cleaned and washed with water, and cast into the oil; which they proceed to heat, and when it is very hot put into it a fresh leaf of *pippala*, or of *bilwa*: when the leaf is burned, the oil is known to be sufficiently hot. Then, having pronounced a *mentra* over the oil, they order the party accused to take the ring out of the pan; and if he take it out without being burned, or without a blister on his hand, his innocence is considered as proved; if not, his guilt*.

(D) A *pala* is four *carshas*, and a *carsha* eighty *ratnicās*, or seeds of the *Gungā* creeper, each weighing above a grain and a quarter, or, correctly, $1\frac{1}{8}$ gr.

* It is reported, that this custom, with some slight variations, still prevails among the Indians on the coast of Malabar. The process there is said to begin after the accused person has been thoroughly washed in the presence of the prince of the country, the priests, &c.:—the pot is filled with boiling lead; and the accused must take the ring out three times successively. On the Malabar coast, this ordeal seems only to be used when the person is accused of a capital crime; for after the process the arm is bound with cloth and sealed; and after several days, being brought out publicly, and the arm inspected, if it is found burnt he is instantly put to death; if not, his accuser undergoes the same trial, and being burnt, forfeits his life.

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of the accused under water, he must be discharged as innocent.

17. 'Thou, O poison, art the child of Brahmá, stedfast in justice and in truth: clear me then from this heavy charge, and, if I have spoken truly, become nectar to me.'

18. Saying this, he shall swallow the poison *Sárnga*, from the tree, which grows on the mountain *Himá-laya*; and if he digests it without any inflammation, the prince shall pronounce him guiltless.

19. Or the priest shall perform rites to the image of some tremendous deity; and, having bathed the idol, shall make the accused to drink three handfuls of the water that has dropped from it:

20. If in fourteen days after he suffer no dreadful calamity from the act of the deity or of the king, he must indubitably be acquitted."

The superstitious weakness of mankind, when left to themselves, is astonishing. There is indeed nothing so absurd but they may be made most firmly to believe, nor so impious but they will do. Nor can a more notorious instance of the truth of this assertion be possibly given than that of the trial by ordeal. The gross absurdity as well as impiety of pronouncing a man guilty unless he was cleared by a miracle, and of expecting that all the powers of nature should be suspended by an immediate interposition of providence to save the innocent, whenever it was presumptuously required, is self-evident. Yet the origin of it may be traced as well to necessity as to superstition. At the time in which it originated in England, as well as in other countries of Europe, it was no easy matter for an innocent person, when accused of guilt, to get himself cleared by the then established mode of trial (See TRIAL). It was therefore natural for superstition to fly to Heaven for those testimonies of innocence which the absurdity of human laws often prevented men from obtaining in the ordinary way; and in this way doubtless did the trial by ordeal commence: and thus begun by necessitous superstition, it was fostered by impious priestcraft and unjust power. There was during all the processes great room for collusion and deceit; and there can be no question but it was often practised: it could not therefore on any account, or in any case, be a sign of innocence or of guilt.

Besides those particular methods of trial which we have already mentioned, there were some few more common in European countries; as the judicial combat—the ordeal of the cross—the ordeal of the corsned.

The judicial combat was well suited to the genius and spirit of fierce and warlike nations, and was, as we may reasonably expect, one of the most ancient and universal modes of trial. We know that it was exceedingly common in Germany in very remote ages. It was also used in some countries on the continent at pretty early periods: it is not, however, mentioned in any of the Anglo-Saxon laws; and it does not appear to have been much used in England till after the Conquest. There are, however, two remarkable instances of it upon record, which we shall give in the words of Dr Henry: "Henry de Essex, hereditary standard-bearer of England, fled from a battle in Wales, A. D. 1158, threw from him the royal standard, and cried out, with others, that the king was slain. Some time af-

ter, he was accused of having done this with a treasonable intention, by Robert de Montfort, another great baron, who offered to prove the truth of his accusation by combat. Henry de Essex denied the charge, and accepted the challenge. When all preliminaries were adjusted, this combat was accordingly fought, in the presence of Henry II. and all his court. Essex was defeated, and expected to be carried out to immediate execution. But the king, who was no friend to this kind of trial, spared his life, and contented himself with confiscating his estate, and making him a monk in the abbey of Reading.

"The priory of Tinmouth, in Northumberland, was a cell of the abbey of St Alban's. One Simon of Tinmouth claimed a right to two corrodies, or the maintenance of two persons in the priory, which the prior and monks denied. This cause was brought before the abbot of St Alban's, and his court-baron, who appointed it to be tried by combat on a certain day, before him and his barons. Ralf Gubion, prior of Tinmouth, appeared at the time and place appointed, attended by his champion, one William Pegun, a man of gigantic stature. The combat was fought, Pegun was defeated, and the prior lost his cause; at which he was so much chagrined, that he immediately resigned his office. This judicial combat is the more remarkable, that it was fought in the court of a spiritual baron, and that one of the parties was a priest."

We need scarcely add, that this detestable form of trial was the foundation of the no less detestable crime of duelling, which so much disgraces our age and nation; which is defended only by ignorance, false honour, and injustice; which is a relick of barbarous superstition; and which was absolutely unknown to those brave and generous nations, the Greeks and Romans, which it is so much the fashion to admire, and who in this particular so well merit our imitation. See DUEL.

It was so much the custom in the middle ages of Christianity, to respect the cross even to superstition, that it would have been indeed wonderful if the same ignorant bigotry had not converted it into an ordeal: accordingly we find it used for this purpose, in so many different ways as almost to preclude description. We shall however transcribe, for the satisfaction of our readers, Dr Henry's account of it, and of the corsned: "In criminal trials, the judgment of the cross was commonly thus conducted. When the prisoner had declared his innocence upon oath, and appealed to the judgment of the cross, two sticks were prepared exactly like one another; the figure of the cross was cut on one of these sticks, and nothing on the other: each of them was then wrapped up in a quantity of fine white wool, and laid on the altar, or on the relicks of the saints; after which a solemn prayer was put up to God, that he would be pleased to discover, by evident signs, whether the prisoner was innocent or guilty. These solemnities being finished, a priest approached the altar, and took up one of the sticks, which was uncovered with much anxiety. If it was the stick marked with the cross, the prisoner was pronounced innocent; if it was the other, he was declared guilty. When the judgment of the cross was appealed to in civil causes, the trial was conducted in this manner: The judges, parties, and all concerned, being assembled in a church, each of the parties chose a priest,

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a priest, the youngest and stoutest that he could find, to be his representative in the trial. These representatives were then placed one on each side of some famous crucifix; and at a signal given, they both at once stretched their arms at full length, so as to form a cross with their body. In this painful posture they continued to stand while divine service was performing; and the party whose representative dropped his arms first lost his cause.

"The corsned, or the consecrated bread and cheese, was the ordeal to which the clergy commonly appealed when they were accused of any crimes; in which they acted a very prudent part, as it was attended with no danger or inconveniency. This ordeal was performed in this manner: A piece of barley-bread, and a piece of cheese, were laid upon the altar, over which a priest pronounced certain conjurations, and prayed with great fervency, that if the person accused was guilty, God would send his angel Gabriel to stop his throat, that he might not be able to swallow that bread and cheese. These prayers being ended, the culprit approached the altar, took up the bread and cheese, and began to eat it. If he swallowed freely, he was declared innocent; but if it stuck in his throat, and he could not swallow, (which we may presume seldom or never happened), he was pronounced guilty."

There were besides these a variety of other ordeals practised in Christian countries, many of which retain the same names as among Pagans, and differ only in the mode of execution. In all nations of Christians where those trials were used, we find the clergy engaged in them. Indeed, in England, so late as King John's time, we find grants to the bishops and clergy to use the *judicium ferri, aquæ, et ignis*. And, both in England and Sweden, the clergy presided at this trial, and it was only performed in the churches or in other consecrated ground: for which Stiernhook gives the reason, *Non defuit illis operæ et laboris pretium; semper enim ab ejusmodi judicio aliquid lucri sacerdotibus obveniebat*. But, to give it its due praise, we find the canon law very early declaring against trial by ordeal, or *vulgaris purgatio*, as being the fabric of the devil, *cum sit contra præceptum Domini, Non tentabis Dominum Deum tuum*. Upon this authority, though the canons themselves were of no validity in England, it was thought proper (as had been done in Denmark above a century before) to disuse and abolish this trial entirely in our courts of justice, by an act of parliament in 3 Hen. III. according to Sir Edward Coke, or rather by an order of the king in council.

It may still perhaps be a *postulatum* with some of our readers how the effects of these trials were evaded, and how it was possible to appear to do, what we know could not be really done, without material injury to the persons concerned: and here we find the subject so well handled by the learned historian whom we have already quoted, as far as concerns the ordeals in ancient Britain, which *mutatis mutandis* will answer for others, that we shall finish the article, which has already extended we fear to too great a length, in his words: "If we suppose that few or none escaped conviction who exposed themselves to those fiery trials, we shall be very much mistaken. For the histories of those times contain innumerable examples of persons plunging their naked arms into boiling water, handling

red-hot balls of iron, and walking upon burning ploughshares, without receiving the least injury. Many learned men have been much puzzled to account for this, and disposed to think that Providence graciously interposed, in a miraculous manner, for the preservation of injured innocence. But if we examine every circumstance of those fiery ordeals with due attention, we shall see sufficient reason to suspect that the whole was a gross imposition on the credulity of mankind. The accused person was committed wholly to the priest who was to perform the ceremony three days before the trial, in which he had time enough to bargain with him for his deliverance, and give him instructions how to act his part. On the day of trial, no person was permitted to enter the church but the priest and the accused till after the iron was heated, when twelve friends of the accuser, and twelve of the accused, and no more, were admitted, and ranged along the wall on each side of the church, at a respectful distance. After the iron was taken out of the fire, several prayers were said; the accused drank a cup of holy water, and sprinkled his hand with it, which might take a considerable time, if the priest was indulgent. The space of nine feet was measured by the accused himself with his own feet, and he would probably give but scanty measure. He was obliged only to touch one of the marks with the toe of his right foot, and allowed to stretch the other foot as far towards the other mark as he could, so that the conveyance was almost instantaneous. His hand was not immediately examined, but wrapped in a cloth prepared for that purpose three days. May we not then, from all these precautions, suspect that these priests were in possession of some secret that secured the hand from the impressions of such a momentary touch of hot iron, or removed all appearances of these impressions in three days; and that they made use of this secret when they saw reason? Such readers as are curious in matters of this kind may find two different directions for making ointments that will have this effect, in the work here quoted †. What greatly strengthens these suspicions is, that we meet with no example of any champion of the church who suffered the least injury from the touch of hot iron in this ordeal; but when any one was so fool-hardy as to appeal to it, or to that of hot water, with a view to deprive the church of any of her possessions, he never failed to burn his fingers, and lose his cause."

ORDER, in architecture, is a system of the several members, ornaments, and proportions of columns and pilasters; or a regular arrangement of the projecting parts of a building, especially the column, so as to form one beautiful whole. See ARCHITECTURE, Chap. 1. Part 1. page 234, &c.

ORDER is also used for a division or class of any thing: thus the tribe of animals called *birds*, is subdivided into six orders. See ORNITHOLOGY, ZOOLOGY, &c.

ORDER, in rhetoric, is the placing of each word and member of a sentence in such a manner, as will most contribute to the force, beauty, or evidence of the whole; according to the genius and custom of different languages. With regard to order, we may observe in general, that, in English, the nearer we keep to the natural or grammatical order, it is generally

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Order.Du Cange,
Gloss. t. 3.
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Order. rally the best; but in Latin, we are to follow the use of the best writers; a joint regard being always had to the judgment of the ear, and the perspicuity of the sense, in both languages.

ORDER is also used for a class or division of the members of the body of a state; with regard to assemblies, precedency, &c.

In this sense, order is a kind of dignity, which, under the same name, is common to several persons; and which, of itself, does not give them any particular public authority, but only rank, and a capacity of arriving at honours and employments.

To abridge this definition, order may be said to be a dignity attended with an aptitude for public employ. By which it is distinguished from an office, which is the exercise of a public trust.

In this sense, nobility is an order, &c. The clergy is also an order, &c.

ORDER is also the title of certain ancient books, containing the divine office, with the order and manner of its performance.

Roman order is that wherein are laid down the ceremonies which obtain in the Romish church. See RITUAL.

ORDER, in botany, is a name given to a subdivision of plants in the Linnæan system. See BOTANY, p. 431. &c.

ORDERS, by way of eminency, or *holy ORDERS*, denote a character peculiar to ecclesiastics, whereby they are set apart for the ministry. See ORDINATION.

This the Romanists make their sixth sacrament.

In no reformed church are there more than three orders; viz. bishops, priests, and deacons. In the Romish church there are seven, exclusive of the episcopate: all which the council of Trent enjoins to be received, and believed, on pain of anathema.

They are distinguished into petty, or secular orders; and major, or sacred orders.

ORDERS, the petty, or minor, are four; viz. those of doorkeeper, exorcist, reader, and acolyth.

Those in petty orders may marry without any dispensation: in effect, the petty orders are looked on as little other than formalities, and as degrees necessary to arrive at the higher orders. Yet the council of Trent is very serious about them: enjoins that none be admitted into them without understanding Latin; and recommends it to the bishops, to observe the intervals of conferring them, that the persons may have a sufficient time to exercise the function of each order: but it leaves the bishops a power of dispensing with those rules; so that the four orders are usually conferred the same day, and only make the first part of the ceremony of ordination.

The Greeks disavow these petty orders, and pass immediately to the subdiaconate; and the reformed to the diaconate.

Their first rise Fleury dates in the time of the emperor Justinian. There is no call nor benefice required for the four petty orders; and even a bastard may enjoy them without any dispensation; nor does a second marriage disqualify.

ORDERS, sacred, or major, we have already observed, are three; viz. those of deacon, priest, and bishop.

The council of Trent retrieving the ancient discipline, forbids any person being admitted to the major

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Order. orders, unless he be in peaceable possession of a benefice sufficient for a decent subsistence; allowing no ordinations on patrimonies or pensions; except where the bishop judges it for the service of the church.

A person is said to be promoted to orders *per saltum*, when he has not before passed the inferior orders. The council of Constantinople forbids any bishop being ordained without passing all the degrees; yet church-history furnishes us with instances of bishops consecrated, without having passed the order of priesthood; and Panormus still thinks such an ordination valid.

Military ORDERS, are companies of knights, instituted by kings and princes, either for defence of the faith, or to confer marks of honour, and make distinctions among their subjects.

Religious ORDERS, are congregations or societies of monastics, living under the same superior, in the same manner, and wearing the same habit.—Religious orders may be reduced to five kinds; viz. monks, canons, knights, mendicants, and regular clerks. See MONK, CANON, &c.

Father Mabillon proves, that till the ninth century, almost all the monasteries in Europe followed the rule of St Benedict; and that the distinction of orders did not commence till upon the reunion of several monasteries into one congregation: that St Odo, abbot of Cluny, first began this reunion, bringing several houses under the dependence of Cluny: that, a little afterwards, in the 11th century, the Camaldulians arose; then, by degrees, the congregation of Vallombrosa; the Cistercians, Carthusians, Augustines; and at last, in the 13th century, the Mendicants. He adds, that Lupus Servatus, abbot of Ferrieres, in the ninth century, is the first that seems to distinguish the order of St Benedict from the rest, and to speak of it as a particular order.

White ORDER denotes the order of regular canons of St Augustine. See AUGUSTINES.

Black ORDER denoted the order of BENEDICTINES.

These names were first given these two orders from the colour of their habit; but are disused since the institution of several other orders, who wear the same colours.

Grey ORDER was the ancient name of the CISTERCIANS; but since the change of the habit, the name suits them no more.

ORDERS, religious military, are those instituted in defence of the faith, and privileged to say mass; and who are prohibited marriage, &c.

Of this kind are the knights of Malta, or of St John of Jerusalem. Such also were the knights Templars, the knights of Calatrava, knights of St Lazarus, Teutonic knights, &c. See MALTA, TEMPLAR, &c.

Father Putignani accounts those military orders where marriage is not allowed, real religious orders. Papebroch says, it is in vain to search for military orders before the 12th century.

ORDERS, in a military sense, all that is lawfully commanded by superior officers. Orders are given out every day, whether in camp, garrison, or on a march, by the commanding officer; which orders are afterwards given to every officer in writing by their respective serjeants.

Ordinal
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Ordinary.

ORDINAL, a book containing the order or manner of performing divine service. See **RITUAL**.

ORDINAL Numbers, those which express order; as 1st, 2d, 3d, &c.

ORDINANCE, or **ORDONNANCE**, a law, statute, or command of a sovereign or superior: thus the acts of parliament are sometimes termed *ordinances of parliament*, as in the parliament-rolls. Though in some cases we find a difference made between the two; ordinances being only temporary things, by way of prohibition; and capable of being altered by the commons alone: whereas an act is a perpetual law, and cannot be altered but by king, lords, and commons.

Coke asserts, that an ordinance of parliament differs from an act, as the latter can only be made by the king, and the threefold consent of the estates; whereas the former may be made by one or two of them.

ORDINANCE of the Forest, is a statute made in the 34th year of Henry I. relating to forest-matters.

In the French jurisprudence, *ordonnances* are such laws as are established by the king's authority alone. All *ordonnances* begin with, *à tous presens & à venir salut*.

ORDINARY, in general, signifies common, usual: thus, an ambassador or envoy in ordinary, is one sent to reside stately, and for a number of years, in the court of some foreign prince or state, in order to keep up a good understanding, and watch over the interest of his own nation.—This term is also applied to several officers in the king's household, who attend on common occasions. Thus we say, physician in ordinary, &c.

ORDINARY, in naval language, denotes the establishment of the persons employed by government to take charge of the ships of war, which are laid up in the several harbours adjacent to the royal dock-yards. These are principally composed of the warrant-officers of the said ships, as the gunner, boatswain, carpenter, deputy-purser, and cook, and three servants. There is besides a crew of labourers inrolled in the list of the ordinary, who pass from ship to ship occasionally, to pump, moor, remove, or clean them, whenever it is necessary.

The term *ordinary* is also applied sometimes to the ships themselves: it is likewise used to distinguish the inferior sailors from the most expert and diligent. The latter are rated *able* on the navy books, and have 1 l. 4 s. *per month*; whereas those who are rated *ordinary* have only 19 s. *per month*.

ORDINARY, in common or canon law, means one who has ordinary or immediate jurisdiction in matters ecclesiastical, in any place. In this sense archdeacons are ordinaries, but the appellation is most frequently applied to the bishop of the diocese, who has of course the ordinary ecclesiastical jurisdiction, and the collation to benefices within such diocese. There are some chapels, chapters, abbeys, &c. exempted from the jurisdiction of the ordinary. The archbishop is ordinary of the whole province, to visit, and receive appeals from the inferior judicatures. The Romish writers on canon law call the pope by way of eminence *ordinary of ordinaries*, since by the Lateran council he has usurped the right of collating, by pro-

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bation, to all benefices; in exclusion of the common collators.

ORDINARY of Assizes and Sessions, was a deputy of the bishop of the diocese, anciently appointed to give malefactors their neck-verses, and judge whether they read or not; also to perform divine service for them, and assist in preparing them for death. So the

ORDINARY of Newgate, is one who is attendant in ordinary upon the condemned malefactors in that prison, to prepare them for death; and he records the behaviour of such persons.

ORDINARY, or *Honourable ORDINARY*, in heraldry, a denomination given to certain charges properly belonging to that art. See **HERALDRY**, Chap. III. sect. i. p. 445. &c.

ORDINATES, in geometry and conics, are lines drawn from any point of the circumference of an ellipsis or other conic section, perpendicularly across the axis, to the other side. See *CONIC-SECTIONS*.

ORDINATION, the act of conferring holy orders, or of initiating a person into the priesthood by prayer and the laying on of hands.

Ordination has always been esteemed the principal prerogative of bishops, and they still retain the function as a mark of spiritual sovereignty in their diocese. Without ordination, no person can receive any benefice, parsonage, vicarage, &c. A person must be 23 years of age, or near it, before he can be ordained deacon, or have any share in the ministry; and full 24 before he can be ordained priest, and by that means be permitted to administer the holy communion. A bishop, on the ordination of clergymen, is to examine them in the presence of the ministers, who, in the ordination of priests, but not of deacons, assist him at the imposition of hands; but this is only done as a mark of assent, not because it is thought necessary. In case any crime, as drunkenness, perjury, forgery, &c. be alleged against any one that is to be ordained, either priest or deacon, the bishop ought to desist from ordaining him. The person to be ordained is to bring a testimonial of his life and doctrine to the bishop, and to give account of his faith in Latin; and both priests and deacons are obliged to subscribe the 39 articles.

The ordination of bishops is more properly and more commonly called *consecration*.

In the ancient discipline there was no such thing as a vague and absolute ordination; but every one was to have a church, whereof he was to be ordained clerk, or priest. In the twelfth century they grew more remiss, and ordained without any title or benefice.

The council of Trent restored the ancient discipline, and appointed that none should be ordained but those who were provided of a benefice sufficient to subsist them. Which practice still obtains in England.

The council of Rome in 744, orders, that no ordinations shall be held except on the first, fourth, seventh, and tenth months. In England, by can. 31. ordination-days are the four Sundays immediately following the Ember-weeks; being the second Sunday in Lent, Trinity-Sunday, and the Sundays following the first Wednesday after September the 14th, and December the 13th. These are the stated times; but ordinations may take place at any other time, according to the discretion of the bishop or circumstances of the case.

Pope Alexander II. condemns *ordination per saltum*,

Ordinary
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Ordination.

Ordnance. as they call it; *i. e.* the leaping to a superior order without passing through the inferior.

Ordination is one of the sacraments of the church of Rome.

In the establishment of Scotland, where there are no bishops, the power of ordination is lodged in the presbytery, and by the Independents in the suffrage of the people. See EPISCOPACY, PRESBYTERIANS, and INDEPENDENTS.

ORDNANCE, a general name for all sorts of great guns used in war. See GUNNERY.

Boring of ORDNANCE. Till within these 20 years, iron ordnance were cast with a cylindrical cavity, nearly of the dimension of the caliber of the piece, which was afterwards enlarged to the proper caliber by means of steel-cutters fixed into the dog-head of a boring-bar-iron. Three side-cutters equidistant were requisite to preserve the caliber straight and cylindrical; and a single cutter was used at the end of the bar to smooth the breech of the piece. In boring ordnance cast hollow, the piece was fixed upon a carriage that could be moved backwards and forwards in a direct line with the centre of a water-wheel; in this centre was fixed the boring bar, of a sufficient length to reach up to the breech of the piece, or more properly to the further end of the caliber. The carriage with the piece being drawn backwards from the centre of the water-wheel to introduce the boring and finishing bars and cutters, it is then pressed forwards upon this bar by means of levers, weights, &c. and the water-wheel being set agoing, the bar and fullers are turned round, and clean out and smooth the caliber to its proper dimensions.

Experience at last pointed out many inconveniences arising from the method of casting guns *hollow*, and widening the calibers by these boring bars. For the body of iron of the hollow gun, being, at casting, in contact with the core that made the caliber within-side, and with the mould without-side, began to consolidate towards these sides in the first place, sooner than in the intermediate space, where of course the contraction of the iron takes place; by which means, all guns cast hollow became more or less spongy where they ought to have been most compact; and numberless cavities also were created round the cores, from stagnated air generated in them, which were too deep to be cut out by the boring.

To remedy these defects, iron ordnance is now universally cast solid, by which means the column of iron is greatly enlarged, and the grain more compressed; and the contraction of the iron becomes in the heart of the column, and consequently is cut out by the perforation for the caliber.

Guns are bored out of the solid reversely from the hollow method. The piece A is placed upon two standards BB, by means of two journeys, turned round by the water-wheel C, the breech D being introduced into the centre of the wheel, with the muzzle towards the sliding carriage E, which is pressed forwards by a ratch F, and weights in the same way as the gun-carriage was in hollow-boring. Upon this sliding carriage is fixed, truly horizontal and central to the gun, the drill-bar G, to the end of which is fixed a carp's-tongue drill or cutter H; which, being pressed forward upon the piece whilst it is turning round, perforates the bore, which is afterwards finished with bars and cut-

Ordnance. ters as the hollow guns were. The principal difficulty of perforated solid guns truly central, arises from the contraction of the iron above-mentioned; which, resisting the drill unequally, tends to throw it out of the central line.

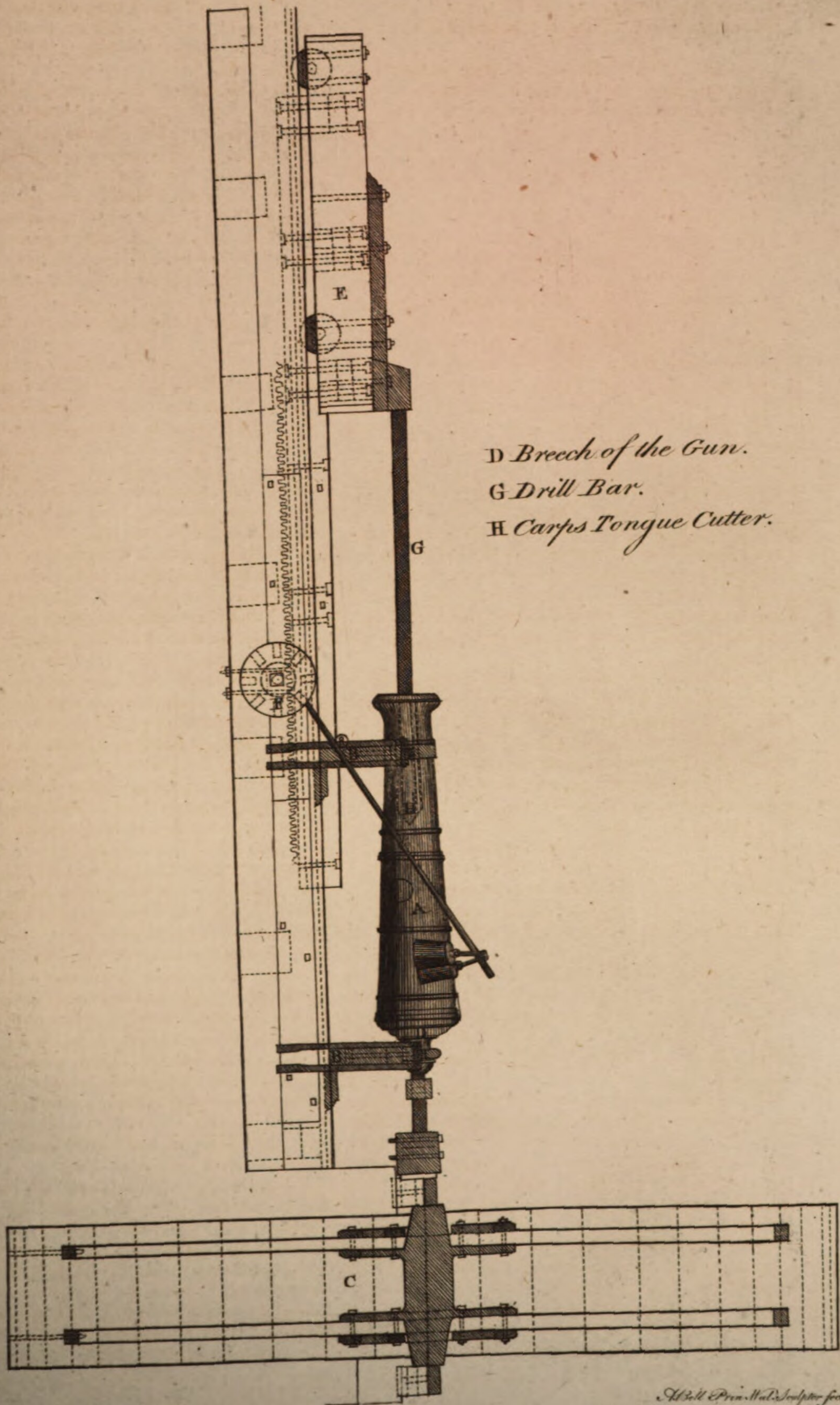
Office of ORDNANCE, an office kept within the Tower of London, which superintends and disposes of all the arms, instruments, and utensils of war, both by sea and land, in all the magazines, garrisons, and forts in Great Britain. We have the following copious account of this establishment in Beatson's *Political Index*. In ancient times, before the invention of guns, this office was supplied by officers under the following names: the *bowyer*, the *cross bowyer*, the *galeator* or *purveyor of helmets*, the *armourer*, and the *keeper of the tents*; and in this state it continued till Henry VIII. placed it under the management of a master, a lieutenant, surveyor, &c. &c.

Some improvements have been since made; and this very important branch is now under the direction of the master general of the ordnance, having under him a lieutenant general, a surveyor general, a clerk, a storekeeper, a clerk of the deliveries, and a treasurer, with a very great number of inferior officers, employed in the Tower of London, at Woolwich, and in almost all the forts, garrisons, and principal ports in his Majesty's dominions. The office of ordnance is divided into two distinct branches, the civil and the military; the latter being subordinate, and under the authority of the former. For the better understanding the business of the different officers, they shall be distinctly treated of, beginning with the principal one, *viz.*

Master General of the ORDNANCE is deemed the principal officer in the civil branch of the ordnance; yet he is always chosen from amongst the first generals in his Majesty's service. His trust is very great, as in him is vested the sole power of storing all the military magazines in the king's dominions with proper munitions of war, and likewise to supply the royal navy with what they may need in his department, the parliament granting money in the most liberal manner for this purpose. He is colonel in chief of the royal regiment of artillery, at present consisting of four battalions; and he is invested with a peculiar jurisdiction over all his Majesty's engineers employed in the several fortifications in his Majesty's dominions; and to him they are all accountable for their proceedings, and from him they receive their particular orders and instructions, according to the directions and commands given by his Majesty in Council. As master general of the ordnance, he has a salary of 1500*l.* *per annum*, and the appointment of almost all the inferior officers and servants. He has a secretary, who has a salary of 220*l.* a-year, and an under-secretary, who has a salary of 180*l.* a-year. There is a secretary to the board of ordnance, who has a salary of 200*l.*; and a counsel to the board, who has a salary of 300*l.* a-year.

Lieutenant General of the ORDNANCE receives all orders and warrants signed by the master general, and from the other principal officers, and sees them duly executed, issues orders as the occasions of the state require, and gives directions for discharging the artillery when required at coronations, birth-days, signal victories, and other solemn occasions. It is also his peculiar office to see the train of artillery and all its equipage fitted for motion, when ordered to be drawn into the field,

or



D Breech of the Gun.
 G Drill Bar.
 H Carps Tongue Cutter.

Ordnance. or sent upon any particular service. As lieutenant-general of the ordnance, he has a salary of 1100 l. *per annum*. He is colonel *en second* of the royal regiment of artillery, and has a secretary and several inferior officers and clerks under him.

Surveyor General of the ORDNANCE inspects the stores and provisions of war in the custody of the storekeeper, and sees that they are ranged and placed in such order as is most proper for their preservation. He allows all bills of debt, and keeps a check upon all labourers and artificers work; sees that the stores received be good and serviceable, duly proved and marked, as they ought to be so, with the king's mark, taking to his assistance the rest of the officers and proof-masters. He has a salary of 700 l. *per annum*; and, in order to assist him in the business of his office, he has under him the proof-master of England, and clerks, and other inferior officers.

Clerk of the ORDNANCE, an officer whose function is to record all orders and instructions given for the government of the office; all patents and grants; the names of all officers, clerks, artificers, gunners, labourers, &c. who enjoy those grants, or any other fee for the same; to draw all estimates for provisions and supplies to be made, and all letters, instructions, commissions, deputations, and contracts for his Majesty's service; to make all bills of imprest and debentures, for the payment and satisfaction of work done and provisions received in the said office; and all quarter books, for the salaries and allowances of all officers, clerks, &c. belonging to the office; and to keep journals and ledgers of the receipts and returns of his Majesty's stores, to serve as a check between the two accountants of the office, the one for money, and the other for stores. He has 500 l. a-year salary, and 100 l. a-year more for being a check on the storekeeper. In his office he has a number of clerks, under-clerks, and ledger-keepers, who have all fixed salaries.

Storekeeper of the ORDNANCE takes into his custody all his Majesty's ordnance, munitions and stores belonging thereto, and indents and puts them in legal security, after they have been surveyed by the surveyor-general, any part of which he must not deliver without a warrant signed by the proper officers; nor must he receive back any stores formerly issued till they have been reviewed by the surveyor, and registered by the clerk of the ordnance in the book of remains; and he must take care that whatever is under his custody be kept safe, and in such readiness as to be fit for service upon the most peremptory demand. He has a salary of 400 l. a-year; and in this office he has several clerks at fixed salaries, for the dispatch of business.

Clerk of the Deliveries of the ORDNANCE draws all orders for delivery of any stores, and sees them duly executed; charges by indenture the particular receiver of the stores delivered; and, in order to discharge the storekeeper, registers the copies of all warrants for the deliveries, as well as the proportions delivered. He has a salary of 400 l. *per annum*, and has several clerks in his office at fixed salaries, for the dispatch of business.

Treasurer and Paymaster of the ORDNANCE receives and pays all moneys, both salaries and debentures in and belonging to this office. He has a salary of 500 l. *per annum*. In his office are several clerks, ordinary and extraordinary, for the dispatch of business.

Office of ORDNANCE. Besides the principal officers already mentioned, there belongs to this office two proofmasters, who have 20 l. a-year each; a clerk of the works, who has 120 l. a-year; a purveyor for the land, who has 100 l. a-year, and a purveyor for the sea, who has 40 l. a-year; an architect, who has 120 l. a-year; an astronomical observer, who has 100 l. a-year, and other officers. The other part of this office, which is termed the military branch of the ordnance, is a chief engineer, who has under him two directors, four sub-directors, with an unlimited number of engineers in ordinary, engineers extraordinary, sub-engineers, and practitioner engineers.

ORDNANCE Bills, commonly called *ordnance debentures*, are bills issued by the board of ordnance on the treasurer of that office, for the payment of stores, &c. These are not payable at any certain time, and do not bear any interest, so that the discount upon them is often very high; but they are seldom much above two years in arrear.

ORDONNANCE, in architecture, is the composition of a building, and the disposition of its parts, both with regard to the whole and to one another; or, as Mr Evelyn expresses it, determining the measure of what is assigned to the several apartments. Thus ordonnance is the judicious contrivance of the plan or mould; as when the court, hall, lodgings, &c. are neither too large nor too small, but the court affords convenient light to the apartments about it; the hall is of fit capacity to receive company; and the bed-chamber, &c. of a proper size. When these divisions are either too great or too small, with respect to the whole, as where there is a large court to a little house, or a small hall to a magnificent palace, the fault is in the ordonnance. See ARCHITECTURE.

ORDONNANCE, in painting, is used for the disposition of the parts of a picture, either with regard to the whole piece, or to the several parts, as the groups, masses, contrasts, &c. See PAINTING.

ORDOVICES, ancient Britons, of whom we have the following account in Henry's History of Great Britain. They lived "in that country which is now called North Wales, and contains the counties of Montgomery, Merioneth, Caernarvon, Denbigh, and Flint. These Ordovices, or (as they are called by Tacitus) Ordeuices, are supposed to have been originally of the same tribe or nation with the Huicii of Warwickshire, who were under some kind of subjection to the Cornavii; but the Huicii of North Wales, being a free and independent people, were called Ordh Huici, or the free Huici. When they were invaded by the Romans, they showed a spirit worthy of their name, and fought with great bravery in defence of their freedom and independency. Though they received a great defeat from the Roman general Ostorius, in conjunction with the Silures, they maintained the war for a considerable time, until they were finally subdued, with great slaughter, by the renowned Agricola. It was probably owing to the nature of the country, and to the vicinity of Diva, now Chester, where a whole legion was quartered, that the Romans had so few towns or stations in the territories of the Ordovices. Mediolanum, which is mentioned by Ptolemy, was the capital of the nation, and was probably situated at Maywood, in Montgomeryshire. It was a place of some consideration in the Roman times,

Ore
||
Orestes.

but was afterwards quite demolished by Edwin, king of Northumberland. Besides this, the Romans had a few other towns in this country; as Segontium, now Caernarvon; Conovium, now Conway; and Varæ, now Bodvay, which are all mentioned in the eleventh journey of Antoninus. The country of the Ordovices was comprehended in the Roman province which was called *Britannia Secunda*."

ORE, in natural history, the compound mineral glebe, earth, stone, or other substance, which is sufficiently rich in metallic particles to be worth the while of purification, and by this means of separating the metal from it, whether gold, silver, copper, &c. See METALLURGY, Part i. sect. 2. p. 427, &c.; and sect. 4. p. 431, &c.; and Part ii. sect. 1. &c. p. 432, &c. See also MINERALOGY, Part i. sect. 2. p. 61, &c.

ORELLANA (Francis), the first European, as is commonly thought, who discovered the river of the Amazons. In 1539, he embarked near Quito, upon the river Coca, which farther down takes the name of Napo. From this he fell into another larger river; and, leaving himself entirely to the direction of the current, he arrived at Cape North, on the coast of Guiana, after sailing nearly 1800 leagues. Orellana perished ten years after, with three vessels which had been intrusted to him in Spain, without being able to find again the mouth of this river. In sailing down the river, he met with some armed women, against whom an Indian cacique had told him to be on his guard; and he thence named it *the river of the Amazons*.

ORENSE, an ancient town of Spain, in the kingdom of Galicia, with a bishop's see. It is famous for its hot-baths; and is seated at the foot of a mountain, on the river Minho, over which there is a handsome bridge of one arch. W. Long. 7. 27. N. Lat. 42. 16.

ORESTES, in ancient history, a son of Agamemnon and Clytemnestra. When his father was cruelly murdered by Clytemnestra and Ægisthus, young Orestes was saved from his mother's dagger by means of his sister Electra, called by Homer *Laodicea*, having been privately conveyed to the house of Strophius, who was king of Phocis, and who had married a sister of Agamemnon. He was tenderly treated by Strophius, who carefully educated him with his son Pylades. The two young princes soon became acquainted, and from their familiarity arose the most inviolable attachment and friendship. When Orestes came to years of discretion, he visited Mycenæ, and avenged his father's death by assassinating his mother Clytemnestra and her adulterer Ægisthus. Various accounts are given of the way in which these murders were committed. After their commission, however, he was acknowledged king of Mycenæ; but being tormented by the furies, a punishment which the ancients always thought followed parricide, he exiled himself to Argos, where he was still pursued by the avengeful goddesses. Apollo, however, purified him, and he was acquitted by the unanimous opinion of the Areopagites, whom Minerva herself instituted on this occasion, according to the narration of the poet Æschylus, who flatters the Athenians in his tragical story, by representing them as passing judgment even upon the gods themselves. According to Pausanias, Orestes was purified of the murder, not at Delphi, but at Trœzene,

where still was seen a large stone at the entrance of Diana's temple, upon which the ceremonies of purification had been performed by nine of the principal citizens of the place. There was also at Megalopolis, in Arcadia, a temple dedicated to the furies, near which Orestes cut off one of his fingers, with his teeth in a fit of insanity. These different traditions are confuted by Euripides, who says that Orestes, after the murder of his mother, consulted the oracle of Apollo at Delphi, where he was informed that nothing could deliver him from the persecutions of the furies, if he did not bring into Greece Diana's statue, which was in the Taurica Chersonesus, and which, as it is reported by some, had fallen down from heaven. This was an arduous enterprize. The king of Chersonesus always sacrificed on the altars of the goddesses all such as entered the borders of his country. Orestes and his friend were therefore both carried before Thoas the king of the place, and they were doomed to be sacrificed. Iphigenia, Orestes's sister, was then priestess of Diana's temple, and it was her office to immolate these strangers. The intelligence that they were Grecians delayed the preparations, and Iphigenia was anxious to learn something about a country which had given her birth. She even interested herself in their misfortunes, and offered to spare the life of one of them, provided he would convey letters to Greece from her hand. This was a difficult trial: never was friendship more truly displayed, according to the words of Ovid, *ex Pont. 3. el. 2.*

*Ire jubet Pylades carum moriturus Orestem,
Hic negat; inque vicem pugnat uterque mori.*

At last, however, Pylades gave way to the pressing intreaties of his friend, and consented to carry the letters of Iphigenia to Greece. These were addressed to Orestes himself; and therefore these circumstances soon led to a discovery of the connections of the priestess with the man whom she was going to immolate. Iphigenia was convinced that he was her brother Orestes; and when the cause of their journey had been explained, she herself resolved with the two friends to fly from Chersonesus, and to carry away the statue of Diana. Their flight was discovered, and Thoas prepared to pursue them; but Minerva interfered, and told him that all had been done by the will and with the approbation of the gods. Some imagine that Orestes came to Cappadocia from Chersonesus, and that there he left the statue of Diana at Comana. Others contradict this tradition; and Pausanias thinks that the statue of Diana Orthia was the same as that which had been carried away from the Chersonesus. Some again suppose that Orestes brought it to Aricia in Italy, where Diana's worship was established. It was after this that Orestes ascended the throne of Argos, where he reigned in perfect security, married Hermione the daughter of Menelaus, and gave his sister to his friend Pylades. The marriage of Orestes with Hermione is also a matter of dispute among the ancients. All are agreed that she had been promised to the son of Agamemnon; but Menelaus had married her to Neoptolemus the son of Achilles, who had shown himself so truly interested in his cause during the Trojan war. The marriage of Hermione with Neoptolemus displeased Orestes; he remembered that she

Orfa,
Orford.

she had been early promised to him; he was therefore determined to recover her by force or artifice. This he did by procuring the assassination of Neoptolemus. According to Ovid's epistle of Hermione to Orestes, Hermione had always been faithful to her first lover, and even it was by her persuasions that Orestes removed her from the house of Neoptolemus, for she was dissatisfied with the partiality of Neoptolemus for Andromache, and her attachment for Orestes was increased. There are, indeed, various opinions likewise about this: he, however, certainly managed to secure her affections, and retired to his kingdom of Argos. His old age was crowned with peace and security, and he died in the 90th year of his age, leaving his throne to his son Tifamenes by Hermione. Three years after the Heraclidæ recovered the Peloponnesus, and banished the descendants of Menelaus from the throne of Argos. Orestes died in Arcadia, as some say, by the bite of a serpent; and the Lacedæmonians, who had become his subjects at the death of Menelaus, were directed by an oracle to bring his bones to Sparta. They were some time after discovered at Tegea, and his stature appeared to be seven cubits, according to the traditions mentioned by Herodotus and others. The friendship of Orestes and of Pylades became proverbial; and the two friends received divine honours among the Scythians, and were worshipped in temples.

ORFA, a considerable town of Diarbeck in Asia, very pleasantly situated, pretty large, and well fortified. It formerly belonged to Persia; but is now in the Turkish dominions, and is a place of very good trade. It has a stately castle standing on a hill, which makes a great show at a distance. They pretend to show the well where Rachel watered her father's camels when Jacob met her, and they call it *Abraham's well*. E. Long. 37. 45. N. Lat. 36. 20.

ORFORD, a town of Suffolk in England, 88 miles from London, situated between two channels, where the river Ore, after having joined the Ald, falls into the sea. It was once a large populous town, with a castle; of which, and of a nunnery near the quay, there are still some ruins. The towers of the castle and its church are a sea-mark for colliers, coasters, and ships that come from Holland. There is a light-house at Orford-Nesse, which is also of great use to seamen, and is a shelter for them when a north-east wind blows hard upon the shore. The town was incorporated by Henry III. has a mayor, 18 portmen, 12 chief burghesses, a recorder, a town-clerk, and two serjeants at mace. Though it sent members to parliament in the 26th of Edward I. yet it had no more elections till the reign of Edward IV. It still sends two members to parliament, and has the title of an *earldom*. There are still remaining the ruins of an holy house where the seamen's wives used to pray for the safety of their husbands. The town is now very mean, and no one contends for an interest in it, but such as want to make themselves a merit in the choice of the two members it returns to parliament. It has indeed, by the withdrawing of the sea, been deprived of its chief advantage, for it now deserves not the name of a harbour. It had the honour to give title of earl to the brave admiral Russell, which, after being many years extinct, was revived in the person

of Sir Robert Walpole, whose grandson now enjoys it. E. Long. 1. 33. N. Lat. 52. 15.

ORGAGNA (Andrea), an excellent Italian painter, was born at Florence in 1329. In his youth he learned sculpture; he was also a poet and an architect. He had a fruitful genius, and his manner resembled that of the other painters of his time. Most of his works are at Pisa. The most admired of them is his picture of the Last Judgment, in which he painted his friends among the blessed, and his foes in hell. He died in 1389.

ORGAL, among dyers, denotes the lees of wine dried.

ORGAN, in general, is an instrument or machine designed for the production of some certain action or operation; in which sense the mechanic powers, machines, and even the veins, arteries, nerves, muscles, and bones of the human body, may be called *organs*.

ORGAN, in music, denotes the largest and most harmonious of all wind-instruments; on which account it is called the *organ organum*, the instrument by way of excellence; chiefly used for playing a thorough bass, with all its accompaniments.

That organs are the invention of remote antiquity has been argued, and seems now to be generally allowed; but the particular time and country in which the discovery was made appears to be lost amidst the ruins of time. In ancient authors there are a variety of passages where mention is made of the organ, but it is at least possible that an instrument is meant very different from that which now goes by the same name. From St Augustin's commentary on the 4th verse of the 150th psalm we learn, that the Greeks had another name for those instruments in which bellows were employed; that the name *organ* was appropriated to this particular instrument merely from the usage of the Latin tongue; and that it was indifferently given to all instruments used to accompany the voice in concert. We mention this, not because we doubt of the antiquity of the organ, but merely to show that the time of its invention cannot be determined by the era of the authors where its name occurs. As the following observations, extracted from a periodical work which has long been in deserved esteem with the public, are intended to ascertain its early use, we submit them, without commentary, to the judgment of our readers. Cassiodorus has described our organ in a few words, lib. 1. Epist. 45. Praising that art, which makes *Organa extraneis vocibus insonare, et peregrinis flatibus complet, ut musica possit arte cantare*. And the emperor Julian has given an exact description of it in an epigram, which may be found in the *Anthologia*, b. i. ch. 86. In his time these instruments were in such request, that Ammianus Marcellinus, b. xiv. ch. 6. complains, that they occasioned the study of the sciences to be abandoned. However, those musical instruments whose melody is produced by wind, had been known at Rome long before. Witness that agreeable poem of Capa, which for its elegance has been ascribed to Virgil; where we find that the musician introduces the wind into her pipes by means of a pair of bellows, which she holds under her arms and blows. In the hydraulic organ, the water moves the air, instead of bellows. Cornelius Severus, in his *Ætina*, has given an exact description

Orgagna
||
Organ.

Gent. Mag.

Organ.

description of it (A). And though there were two kinds of hydraulic and pneumatic instruments, the first of which played by the inspiration and action of bellows, and the others by the action of water, it is certain nevertheless, that both of them were pneumatic, being inspired by the wind. And Heron of Alexandria, in his *Pneumatics*, has treated of hydraulics as belonging to pneumatics. This Heron lived in the time of Ptolemy Euergetes, king of Egypt. When Suetonius says, that Nero *Organa hydraulica novi et ignoti generis circumduxit*, he did not mean that they were unknown at Rome before Nero, but that those of Nero were of a new construction. Those were the hydraulics of a new fabric, which he exhibited to the people at the public games, as Suetonius relates a little after. Heliogabalus, one of the worthy successors of Nero, like him was fond of these hydraulics; and Alexander Severus, his cousin and successor, had the same inclination. Claudian, who lived some time after, has left us this elegant description of them :

*Et qui magna levi detrudens murmura tactu
Immeras voces segetis moderatur ænæ;
Intonet erranti digito, penitusque trabali
Væste laborantes in carmina concitat undas.*

This very construction, which is observed in the pipes of an organ, gradually decreasing in magnitude, has been represented in an epigram of Optatianus Porphyrius, who lived in the time of Constantine. This epigram, which is quoted in Pithon's collection of ancient epigrams, is composed of verses of an unequal length, successively increasing. This corresponds with those words of the old scholiast on Juvenal, sat. 8. ver. 270. *Tunicæ Galli utuntur in sacris in modum organi utrinque decrescentibus virgulis purpureis.*

On the whole, then, the antiquity of organs, or of instruments of a very similar nature, can scarcely be disputed; but nothing very particular respecting the time, place, or manner, of the invention can possibly be determined from those incidental observations which occur in the writings of the ancients (B). It appears indeed to have been borrowed by the Latins from the Greeks, but not to have been in general use till the eighth century; and it has been affirmed, that, in France, it was not known till the time of Louis the Debonair i. e. A. D. 815, when an Italian priest taught the use and construction of it, which he himself had learned at Constantinople. By some, however, it has been carried as far back as Charlemagne, and by others as far as Pepin. Bellarmine says that the organ began to be used in the service of the church about the year 660, as Platina relates out of the Pontifical: for when Pope Vitalian reformed the singing of the Roman church, he added to it organs in order to support and embellish it. Ammonius thinks, however, that this happened after the year 820, in the time of Louis the Pious. Perhaps the learned Bingham is our surest guide in determining this point. He positively asserts† that there were no such things as organs in use in the ancient church; and that though church-music was as old as the apostles, instrumental music was not so. He also says that it was the general opinion of the learned in his days, that organs were not introduced into churches till after the time of Thomas Aquinas, A. D. 1250; and for this opinion, as far as the authority of Aquinas will go, we have a positive proof; for in his sums we find these words. "Our church does not use musical instruments, as harps, and psalteries, to praise God withal, that she may not seem to Judaize (C)." From

Organ.

† ORIGINES
Sacra.

(A) Which is thus translated by Mr Jabez Hughes :

* Organon
Hydraulicon.

As in an organ *, first the rushing air
A mass of waters does before it bear;
And then the waters, in their turn, we find
Drive through the hollow pipes the vanquish'd wind;
Which strongly from its strait confinement sent,
Comes loudly rattling through the narrow vent:
Still as the waters press, the spirits sound,
And spread the bubbling symphony around.
So air and water meet, &c.

It is by no means certain that Cornelius Severus was the author of this poem, though it is published under his name by Le Clerc. Seneca's authority, on which the Younger Scaliger founds his opinion, enforces no such conclusion. He only says, that "Severus was not discouraged from writing on this subject, by its having been already treated by Ovid and Virgil." Barthius, in his notes on Claudian, refers it to Manilius, and in his *Adversaria* to some Christian writer. By others it has been ascribed to Virgil, and by Scaliger, the father, to Quintilius Varus. But though it is less clear and methodical than Virgil, and though it has been much mutilated by time, it certainly was penned by a masterly and truly poetical hand.

(B) Vitruvius describes an organ in his 10th book, and St Jerome mentions one with 12 pair of bellows which might be heard a thousand paces, or a mile; and another at Jerusalem, which might be heard at the Mount of Olives.

(C) The lawfulness of using organs in churches, has, however, been ably defended by an appeal to the use which the Jews made of instruments of music in divine service; and with much reason: for were the use criminal in us, as was asserted by many well-meaning men of the last century, and as it is still thought by some in this, it would unquestionably have been equally unlawful for the Jews. The Christians in Aquinas's time, however, acted wisely in avoiding the use of them, if by so doing they would have given offence to their weaker

Organ.
* Bingham
ali supra.

From hence it has reasonably been concluded, particularly by the learned Gregory*, that they were not used in churches in his time. Mr Wharton has also observed that *Marinus Sanutus* (who flourished A. D. 1290) first introduced wind-organs into churches; from this circumstance he derived the name *Torcellus*, the name for organ in the Italian language. About this same time Durandus in his *Rationale* speaks of them as generally received in the church; and he, in Mr Gregory's opinion, is the first author who takes notice of it. These authorities are strong, and the opinions founded on them by the learned render them still more convincing: it appears, however, from the testimony of Gervas the monk of Canterbury, who flourished A. D. 1200, that organs were introduced upwards of 100 years even before that time; for in his description of Lanfranc's church, as it was before the fire in 1174, he has these words, "*Crux australis supra fornem organa gestare solebat.*" We do not say that this invalidates the reasoning of the learned Bingham; of that our readers are to judge, and in forming their judgments they will be determined by the credit of the testimonies which are here opposed to each other. If we suppose that of Gervas the strongest, and in opposition to the other conclude from it, that organs were introduced into England long before the 13th century, it will give some countenance to an opinion which prevails pretty generally, viz. that in Italy, Germany, and England, they became frequent about the 10th century. See Music, n° 19. But however we are disposed to determine this matter (which is in itself but of little consequence), it is certain that the use of the organ was very common in the latter ages of the church, and the propriety of it was undisputed. In the last century, however, during the civil wars, organs were removed from the churches in England; and so generally reprobated, that, at the Restoration, there could scarce be found either organists, organ builders, or fingers(n).

The organs in Germany (says Dr Bruey) in magnitude, and the organists in abilities, seem unrivalled in any other part of Europe, particularly in the use of pedals. In Marpurgh's Essays, vol. iii. there is a minute account of a variety of organs in Germany; of all which the longest pipe of the manuals is 16 feet long, and of the pedals 32. One of the largest organs in Germany, but which Marpurgh has omitted in his list, is at Gorliz in Upper Lusatia. It would be to no purpose to enlarge our article with a more minute account of the state of organic music in different parts of the world: in various parts of the article Music, observations connected with this subject will be found, and to that we must refer. We may particularly mark, for the perusal of those who wish for further information on this subject, in addition to

n° 19. above referred to, several passages of the article Music, beginning at p. 492. We need scarcely refer to the life of Handel, which all our readers who are fond of music of any kind, particularly sacred, have undoubtedly perused.

The church-organ consists of two parts; the main body, called the *great organ*; and the positive or *little organ*, which forms a small case or buffet, commonly placed before the great organ. The size of an organ is generally expressed by the length of its largest pipe: thus they say, an organ of 8, 16, 32 feet, &c. The organ in the cathedral church at Ulm in Germany is 93 feet high and 28 broad: its largest pipe is 13 inches diameter, and it has 16 pair of bellows.

The several parts of the church-organ are as follow. HH is the sound-board: which is composed of two parts, the upper board or cover HHH, and the under board HI, which is much thicker than the other; each of these consists of several planks laid with their edges to each other, and joined very close together. In the under side of the lower board there are made several channels, which run in the direction LL, MM, &c. and are continued as far as there are stops in the organ, and come almost to the edge HK. These channels are covered over very close with parchment or leather all the way, except a hole that is commonly at the fore-end next HK, upon which a valve or puff is placed. These channels are called *partitions*. When this valve or flap is shut, it keeps out the air, and admits it when open. On the upper side of the lower board there are likewise cut several broad square channels, lying cross the former, but not so deep as to reach them; these lie in the direction LN, PQ, &c. To fit these channels, there are the same number of wooden sliders or registers *f, f, f*, &c. running the whole length; and these may be drawn out or thrust in at pleasure. The number of these is the same as that of the stops in the organ.

IKKK is the wind-chest, which is a square box fitted close to the under side of the lower board, and made air-tight, so that no air can get out but what goes through the valves along the partitions.

VV are the valves or puffs which open into the wind-chest; they are all inclosed in it, and may be placed in any part of it, as occasion shall require. One of these valves, with the spring that shuts it, and the wire that opens it, is represented by fig. 2.

C, D, E, F, &c. are the keys on which the fingers are placed when the organ is played: these keys lie over the horizontal bar of wood W, in which are stuck an equal number of wire-pins *z, z*, on which keys are fixed; and the keys move up and down on the bar, as on a centre. There is another bar, against which the keys fall when put down, and which is here marked 3: on this also are several wires, which go through the keys, to guide them; and on this bar a list is fastened

Organ.

Plate
CCCLXVII.
fig. 1.

weaker brethren. For though they are highly ornamental, and in some churches may be productive of good effects, yet the use of them is far from being essential, and may be easily dispensed with.

(D) Organs have never yet been used in the establishment of Scotland, since that became Presbyterian; but they are used in Holland, where that form of church government also obtains. Bishop Horne, in a sermon which he preached at the opening of the new organ at Canterbury in 1784, says that he believes some Presbyterian dissenters in England have adopted it in their places of worship. See his Sermon, page 8.

Organ.

fastened to hinder the keys from knocking against the wood.

The keys are made to communicate with the valves several ways, as we shall now describe. First, s, s, s , are the key-rollers, moving on the pivots t, t : these rollers lie horizontally, one above another, and are of such a length as to reach from the valve to the key: a, a, a , are arms or levers fixed to the key-rollers: w, w , the valve-wires fixed to the arms a, a , and to the valves V , and go through the holes b, b , in the bottom of the wind-chest: b, b, b , are likewise arms fixed to the key-rollers: d, d, d , the key-wires, fixed to the arms b, b , and to the keys C, D, E . Now, when the end of any one of the keys C, D, E , is put down, it pulls down the arm b , by the wire d , which turns about the roller s with the arm a , that pulls down the wire w , which opens the valve that is shut by the spring as soon as the pressure is taken off the key. In this construction there must be a worm-spring fastened to the key, and to the bar W on the further side, to keep down the end s of the key.

Another method of opening the valves is thus: x, y , x, y , are slender levers, moveable on the centres $1, 1$; $5, x, 5, x$, are wires going from the further ends of the keys to the ends x of the levers; y, V, y, V , are other wires, reaching from the ends y of the levers, through the holes b , to the valves V . So that putting down the key C, D , &c. raises the end 5 , which thrusts up the end x of the lever, by the wire $5, x$: this depresses the end y of the lever, which pulls down the wire y, V , and opens the valve V .

A third way of opening the valves is this: At the end of the key b , is a lever $8, 9$, moving in the centre 7 . This makes, with the key, a compound lever. From the end 9 , a wire goes to the valve. Now the putting down the end 6 of the key, raises the end 8 , which depresses the end 9 , of the lever $8, 9$, pulls down the wire, and opens the valve. There is only one of these drawn in the scheme, and but a few of the others, to avoid confusion.

R, R , are the rollers, to move the sliders, by help of the arms cf, cf , which are fixed horizontally in these rollers: ke, ke , are also levers fixed in the rollers; le, le , are the handles, which lie horizontally, and pass through the holes ll ; they are fastened to the lever ke , being moveable about a joint at e .

Now, any handle lp , being drawn out, pulls the end e toward l , which turns about R, k , along with the arm cf ; and the end f pulls out the slider fg ; and when p is thrust in, the arm cf likewise thrusts in the slider fg .

Upon the several rows of holes which appear on the top of the upper board, there are set up an equal number of rows of pipes. The pipes of an organ are of two kinds; the one has a mouth like a flute, the other with reeds. The first, called *pipes of mutation*, consist, (1.) of a foot AABB (fig. 3.), which is a hollow cone, that receives the wind that is to sound the pipe: (2.) To this foot is fastened the body of the pipe BBDD. Between the foot and the body of the pipe is a diaphragm or partition FEF, that has a long but narrow aperture by which the wind comes out; over this aperture is the mouth BBC, whose upper lip C , being level, cuts the wind as it comes out.

No 253.

Organ.

The pipes are of pewter, of lead mixed with a twelfth part of tin, and of wood. Those of pewter are always open at their extremities: their diameter is very small, and their sound very clear and shrill. Those of lead mixed with tin are larger; the shortest are open, the longest quite stopped; those of a mean size are partly stopped, and have beside a little ear on each side the mouth, to be drawn closer or set further asunder, in order to raise or lower the sound. The wooden pipes are square, and their extremity is stopped with a valve or tampion of leather. The sound of the wooden and leaden pipes is very soft; the large ones stopped are commonly of wood, the small ones of lead. The longest pipes give the gravest sound, and the shortest the most acute: their lengths and widths are determined by a fixed proportion to their sounds; and their divisions are regulated by a rule, which is called the *diapason*. The longest has commonly 16 feet; but in very large organs it has 32 feet. The pedal tubes are always open, though made of wood and of lead. Whatever note any open pipe sounds, when its mouth is stopped it will sound an octave lower; and a pipe of twice its capacity will likewise sound an octave lower.

A reed-pipe consists of a foot AABB (fig. 4.), that carries the wind into the shallot or reed CD , which is a hollow demi-cylinder, fitted at its extremity D , into a sort of mould, by a wooden tampion G . The shallot is covered with a plate of copper $KKLL$, fitted at its extremity II , into the mould, by the same wooden tampion. Its other extremity KK is at liberty: so that the air entering the shallot makes it tremble or shake against the reed; and the longer that part of the tongue IL , which is at liberty, is made, the deeper is the sound. The mould II , that serves to fix the shallot or reed, the tongue, tampion, &c. serves also to stop the foot of the pipe, and make the wind go out wholly at the reed. Lastly, in the mould is foldered the tube HH , whose inward opening is a continuation of that of the reed: the form of this tube is different in different ranks of pipes. The degree of acuteness or gravity in the sound of a reed pipe, depends on the length of the tongue, and that of the pipe CK , taken from the extremity of the shallot to the extremity of the tube. The quantity or intention of the sound depends on the width of the reed, the tongue, and the tube; as also on the thickness of the tongue, the figure of the tube, and the quantity of wind. To diversify the sounds of the pipes, a valve is added to the port-vent, which makes the wind go out in fits or shakes. In fig. 1. X represents a flute-pipe of wood, Z a flute-pipe of metal, Y a trumpet-pipe of metal. The pipes, to prevent them from falling, pass through holes made in boards, placed upon the upper board.

The pipes are made to communicate with the wind-chest in the following manner. There are holes bored that go through the upper and lower boards, and through the slider (when it is drawn out), into the partition below; so that any pipes placed upon those holes will then communicate with the partition, which by its valve communicates with the wind-chest. But when the slider is thrust in, its holes do not answer to those in the upper and lower boards; therefore, the com-

Organ. communication is stopped, so that no wind can get to the pipe.

Plate
ccclxvii.

To every large organ there must be at least two pair of bellows, which are marked in fig. 1. by TU, TU. O, O, are the handles, moving upon the axis *nn, nn*. Each of these bellows consist of two boards, the lowest of which is immoveable; and in this there is a valve *r*, opening inwards, and a tube leading to it, called the *conveying tube*. There is also a hole in this under board, from which a tube leads to the port-vent, which is a square tube marked 4, rising upward, and inserted into the under side of the wind-chest at 2. In the tube leading to the port-vent, there is a valve that opens towards the port-vent, and suffers the air to go up the port-vent, but not to return. Now the handle O being pulled down, raises the upper board T, and the air enters through the valve *r*; and when the handle is let go, the weight of the upper board, which carries three or four pound to every square foot, continually descending, drives the air through the port-vent to the sound-board: and as the bellows work alternately, one pair is constantly descending, which occasions a continual blast through the port-vent. In chamber-organs there is but one pair of bellows; but they are formed of three boards, in the manner of a smith's bellows, and so have a continual blast. All the internal structure of the organ is concealed from the sight by the front of the instrument, which stands upon the part between the numbers 3 and 6 (fig. 1.)

In every organ the number of partitions LL, MM, &c. there are in the sound-board (fig. 1.) that of the valves VV, that of the rollers *ss*, or of the levers *xy* or 89 and their wires, and that of the keys ABC, &c. must be always equal. Large organs have commonly four or five sets of keys, beside those that belong to the pedals or large pipes, the stops to which are played by the feet; said to be the invention of Bernhard, a German, about the year 1400. These command certain pipes, which, to increase the harmony, are turned below the diapason. The keys of an organ are usually divided into four octaves; which are, the first sub-octave, second sub-octave, middle octave, and first octave. Each octave is divided into 12 stops or frets, of which seven are black and five white; the former mark the natural notes, and the latter the artificial notes, that is, flats and sharps. The number of keys, therefore, when there are four octaves, must be 48. Some organists add one or more stops to the first and second sub-octaves. The pedals have two or three octaves, at the option of the organist; so that the number of stops is indeterminate. The keys are placed between GG (fig. 1.), but the scheme could not contain them all. There are also as many handles *l, l*, &c. rollers RR, &c. sliders *f, f*, &c. as there are stops upon the organ; and it must be observed, that between the sliders *f, f*, &c. there are as many sliders on the right hand, and the same number of handles and rollers, and other rows of pipes placed between LN, PQ, which could not be expressed in the figure.

The least pipes and partitions are placed toward the middle of the organ, and the greatest on the outside. The stops of an organ have various denominations, according to the sounds they are to produce; some of

which are diapason, principal, fifteenth, twelfth, tearce, cornet, trumpet, French horn, vox humana, flute, bassoon, cremona, &c. The foreign organs, especially those of Germany, have many more: particularly that in the abbey church of Weingarten, a town in the upper Palatine, which has 66 stops, and contains no fewer than 6666 pipes. The organ at Haerlem is said to have 60 stops, many of them but little known to the English workmen, and distinguished by names that express the sound which they produce.

When this magnificent instrument is played, the handle O of the bellows is first put down, which raises the upper board T, and gives room for the air to enter by the valve *r*. Then the other handle O is put down: in the mean time the board T, belonging to the first handle, descending, and shutting the valve *r*, drives the air through the other valve, up the port-vent, and into the wind-chest. Then drawing out any handle, as that of the flute-stop *pl*, which draws out the slider *fg*, all the pipes in the set LN are ready to play, as soon as the keys C, D, E, &c. are put down: therefore, if the key D be put down, it opens the corresponding valve *m V*, through which the air enters into the pipe X, and makes it sound. In the same manner any other pipe in the set LN, will sound when its key is put down; but no pipe, in any other set, will sound till the slider be drawn out by its corresponding handle.

Among the modern improvements of the organ, the most remarkable are the swell and the tremblant: the former, invented by an English artist, consists in a number of pipes placed in a remote part of the instrument, and inclosed in a kind of box, which, being gradually opened by the pressure of the foot, increases the sound as the wind does the sound of a peal of bells, or suppresses it in like manner by the contrary action. The tremblant is a contrivance by means of a valve in the port-vent or passage from the wind-chest, to check the wind, and admit it only by starts; so that the notes seem to stammer, and the whole instrument to sob, in a manner very offensive to the ear. There is a tremblant in the organ at the German chapel in the Savoy. See Hawkin's *History of Music*, and Burney.

Hydraulic ORGAN, denotes a musical machine that plays by water instead of wind. Of these there are several in Italy, in the grottoes of vineyards. Ctesibes of Alexandria, who lived in the time of Ptolemy Euergetes, is said to have invented organs that played by compressing the air with water, as is still practised. Archimedes and Vitruvius have left us descriptions of the hydraulic organ.

In the cabinet of Queen Christina is a beautiful and large medallion of Valentinian, on the reverse whereof is seen one of these hydraulic organs; with two men, one on the right, the other on the left, seeming to pump the water which plays it, and to listen to its sound. It has only eight pipes, placed on a round pedestal. The inscription is *PLACEA SPETRI*, if it be not wrong copied, which we suspect to be the case.

ORGASM *οργασμος*, denoting violence or turgescency; formed from *οργαω, turgeo*, "I swell," an ecstasy or impetuous desire of coition, occasioned by a turgescency of the seminal vessels, which are no longer able to restrain their contents. The ancients also extend

Organ,
Orgasm.

Orgia
||
Oribasius.

tend orgasm to the other humours, and even excrements, which being accumulated, and coming to ferment, demand excretion. Quincy uses orgasm for an impetuous or too quick motion of the blood or spirits; whereby the muscles are distended with an uncommon force.

ORGIA, feasts and sacrifices in honour of Bacchus, held every third year, and chiefly celebrated by wild distracted women, called *Bacchæ*. The chief solemnities were performed in the night, to conceal, perhaps, their shocking impurities; and a mountain was generally chosen as the place of celebration. They were instituted by Orpheus; and from him are sometimes called *Orphica*. Authors are not agreed as to the derivation of the word; but if we consider the frantic proceedings of the Bacchanalians, *οργη*, *furor*, bids fair for the true etymology. See BACCHANALIA.

Orgia, according to Servius, was a common name for all kinds of sacrifices among the Greeks, as *cere-monie* was amongst the Romans.

ORGUES, in the military art, are thick long pieces of wood, pointed at one end, and shod with iron, clear one of another; hanging each by a particular rope or cord, over the gateway of a strong place, perpendicularly, to be let fall in case of the approach of an enemy.

Orgues are preferable to herfes, or portcullices, because these may be either broke by a petard, or they may be stopped in their falling down: but a petard is useless against an orgue; for if it break one or two of the pieces, they immediately fall down again and fill up the vacancy; or if they stop one or two of the pieces from falling, it is no hinderance to the rest; for being all separate, they have no dependence upon one another.

ORGUES, is also used for a machine composed of several harquebuzs or musket barrels bound together, by means whereof several explosions are made at the same time. It is used to defend breaches and other places attacked.

ORGYA, *οργυια*, an ancient Grecian measure containing six feet.

ORIBASIA, in botany: A genus of the monogynia order, belong to the pentandria class of plants; and in the natural method ranking under the 47th order, *Stellata*. The corolla is small, tubulated, and monopetalous. The pericarpium is a globular berry, grooved longitudinally; is quinquelocular, and contains one seed. Of this there are six species, all natives of the warmer parts of America, viz. 1. *Officinalis*: the natives of Guiana make infusions of the leaves, and give them in cases of spasmodic asthma. 2. *Racemosa*. 3. *Violacea*. 4. *Lutea*. 5. *Paniculata*. 6. *Longiflora*. The habit of all these plants resembles those of *Psychotria*.

ORIBASUS, a celebrated physician greatly esteemed by the emperor Julian, in whose reign he flourished. He abridged the works of Galen, and of all the most respectable writers on physic. This was done

at the request of the emperor. He accompanied Julian into the east, but his skill proved ineffectual in attempting to cure the fatal wound which his benefactor had received. After Julian's death he fell into the hands of the barbarians.

ORICHALCUM, or AURICHALCUM, a metallic substance resembling gold in colour, but very inferior in value. It was well known to the old Romans, who often took advantage of its resemblance to gold: for some sacrilegious characters, who could not resist the temptation of taking gold from temples and other public places, chose to conceal their guilt by replacing it with orichalcum. It was thus that Julius Cæsar acted when he robbed the capitol of 3000 pound weight of gold; in which he was followed by Vitellius, who despoiled the temples of their gifts and ornaments, and replaced them with this inferior metal. It has been a matter of dispute with philosophers and others, what this metal could be, or how it was procured or made; it is probable at least that it was greatly analogous to our brass, if not wholly the same with it. (See BRASS.) The value of our brass is much less than that of gold, and the resemblance of brass to gold, in colour, is obvious at first sight. Both brass and gold, indeed, are susceptible of a variety of shades of yellow; and, if very pale brass be compared with gold, mixed with much copper, such as the foreign goldsmiths, especially, use in their toys, a disparity may be seen; but the nearness of the resemblance is sufficiently ascertained in general, from observing that substances gilded with brass, or as it is commonly called *Dutch leaf*, are not easily distinguished from such as are gilded with gold leaf.

The Romans were not only in possession of a metallic substance, called by them *orichalcum*, and resembling gold in colour, but they knew also the manner of making it, and the materials from which they made it were the very same from which we make brass. There are, indeed, authors of great repute who think very differently; and who consider the art of making brass as an invention wholly modern. Thus M. Cronstedt does not think it just to conclude from old coins and other antiquities, that it is evidently proved that the making of brass was known in the most ancient times;* and the authors of the French *Encyclopédie* assure us, that our brass is a very recent invention (A). It appears, however, from Pliny's *Nat. Hist.* lib. xxxiv. § 2. and from the concurring testimony of other writers, that orichalcum was not a pure or original metal; but that its basis was copper, which the Romans changed into orichalcum by means of *cadmia*, a species of earth which they threw upon the copper, and which it absorbed. It has indeed been contended that the *cadmia* of Pliny was native arsenic, an opinion which scarcely merits confutation, but which must appear extremely groundless, when we reflect that it is impossible to make either brass or copper from arsenic, and that Pliny expressly calls it a *stone* from which brass was made. The testimony of Ambrose

Orichalcum.

(A) Art. Orichalque—"The vessels here called brazen, after ancient authors, cannot have been of the materials our present brass is composed of; the art of making it is a modern discovery." See *Laughton's Hist. of Ancient Egypt*, p. 58.

Fig. 1.

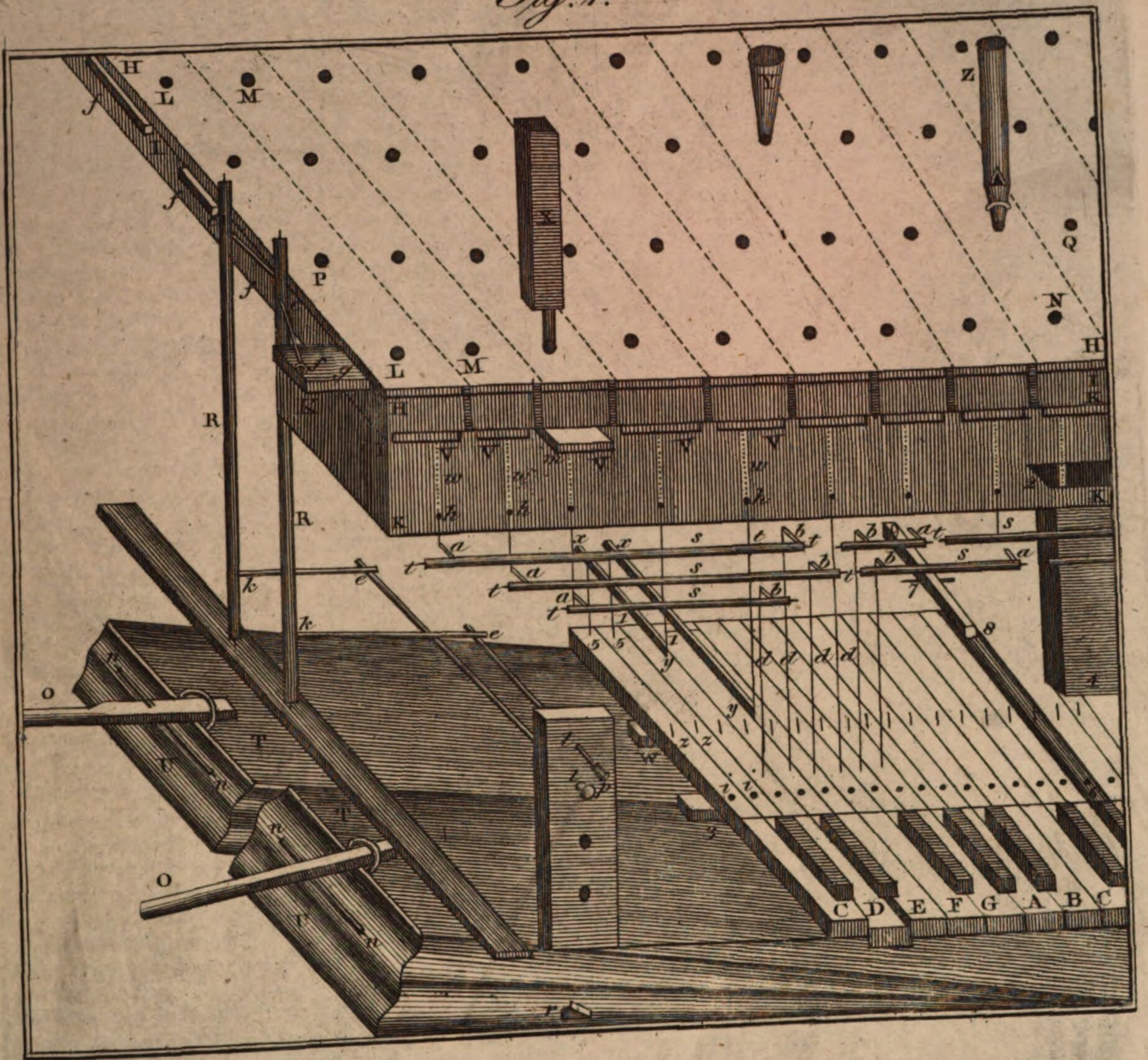


Fig. 2.



Fig. 3.

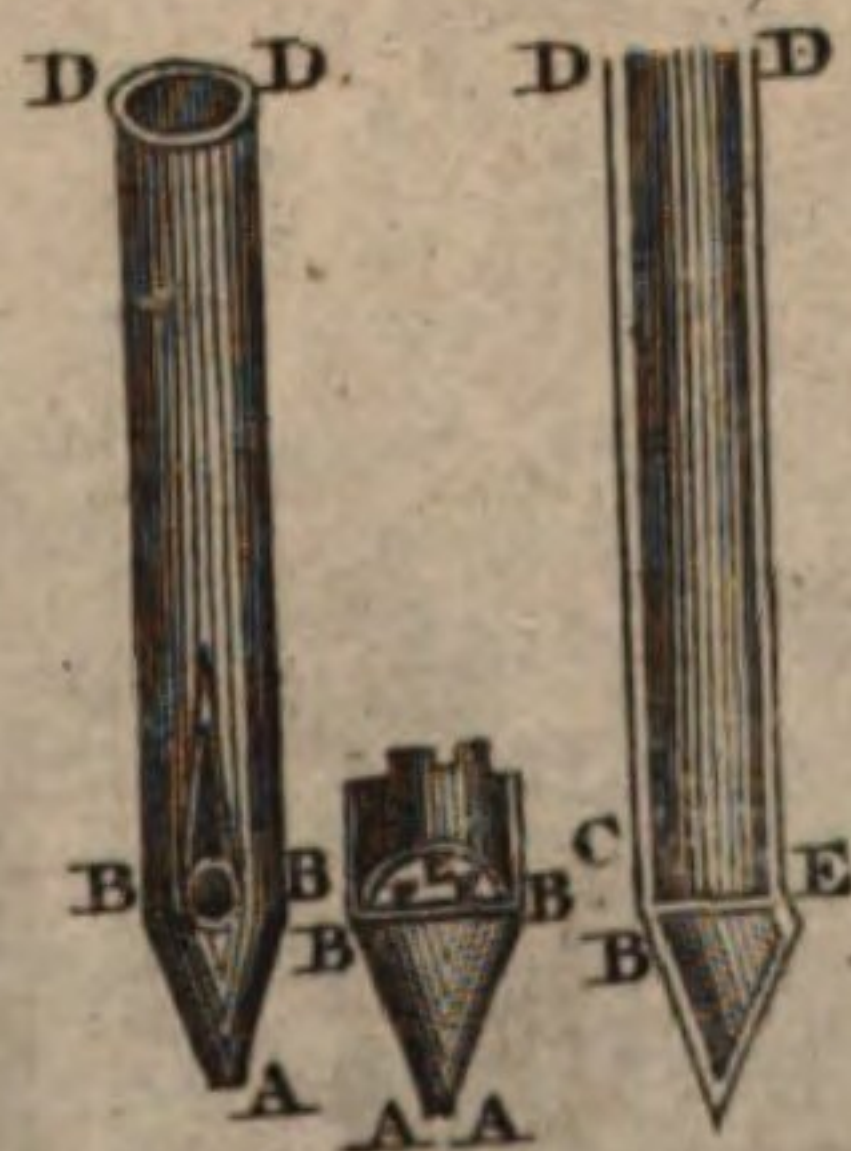
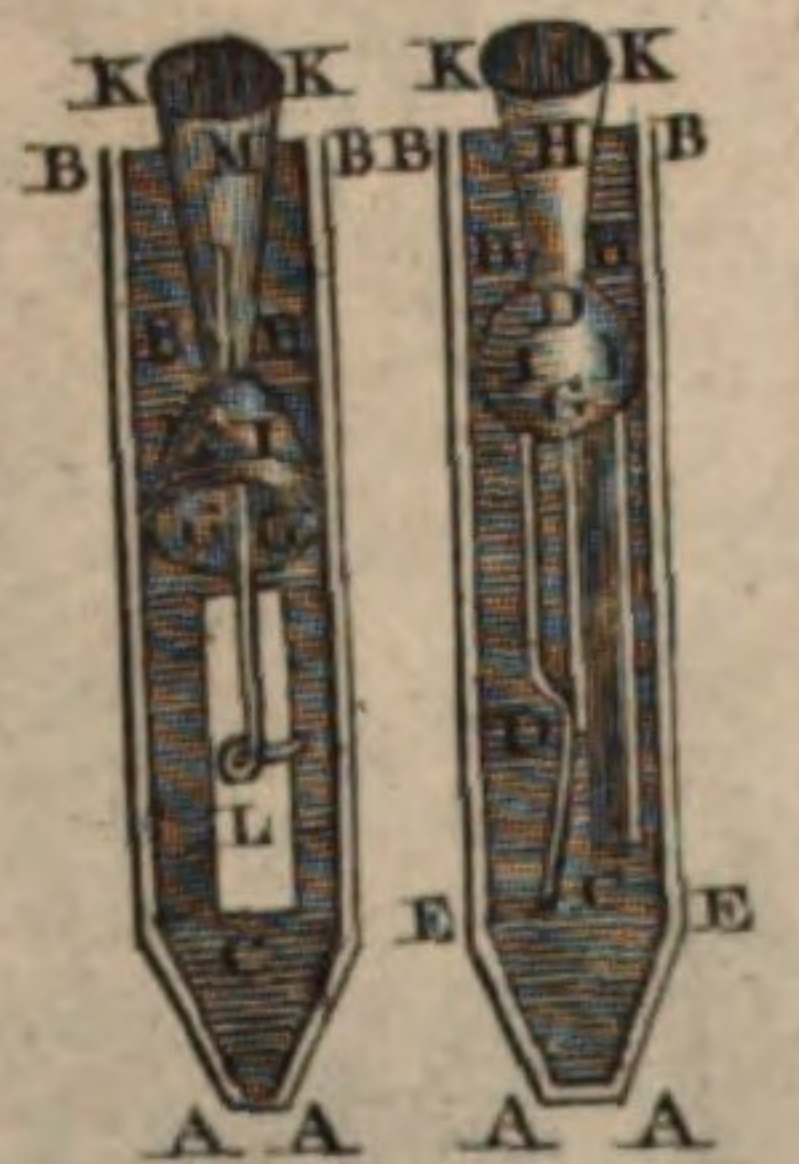


Fig. 4.



Orichalcum.

brose bishop of Milan, in the 4th century, and of Primasius bishop of Adermetum, in Africa, in the 6th, and of Isidorus bishop of Seville in the 7th, all seem to confirm Pliny's account. We may therefore safely conclude that the Romans knew the method of making brass by mixing *cadmia* or *calamine* with copper; yet it is probable they were not the inventors of this art, but that they borrowed it from some other country. It appears from a variety of testimonies that brass was made in Asia, in a manner very similar to that at Rome; and a variety of places are mentioned in that extensive country where it was commonly made; and it is supposed by some that in India, as well as in other parts of Asia, it was made in the remotest ages.

With respect to orichalcum, it is generally supposed that there were two sorts of it, one factitious, the other natural. The factitious, whether we consider its qualities or composition, appears to have been the same with our brass. As to the natural orichalcum, there is no impossibility in supposing, that copper ore may be so intimately blended with an ore of zinc, or of some other metallic substance, that the compound, when smelted, may yield a mixed metal of a paler hue than copper, and resembling the colour of either gold or silver. In Du Halde's history of China, we meet with the following account of the Chinese white copper. "The most extraordinary copper is called *de-tong*, or white copper: it is white when dug out of the mine, and still more white within than without. It appears by a vast number of experiments made at Peking, that its colour is owing to no mixture; on the contrary all mixtures diminish its beauty; for, when it is rightly managed, it looks exactly like silver: and were there not a necessity of mixing a little *tutenag*, or some such metal with it, to soften it and prevent its brittleness, it would be so much the more extraordinary, as this sort of copper is perhaps to be met with nowhere but in China, and that only in the province of *Tun-nan*." Notwithstanding what is here said of the colour of this copper being owing to no mixture, it is certain that the Chinese white copper, as brought to us, is a mixed metal; so that the ore from which it is extracted must consist of various metallic substances, and from some such ore it is possible that the natural orichalcum, if ever it existed, may have been made. But, notwithstanding that the existence of natural orichalcum cannot be shown to be impossible, yet there is some reason to doubt whether it ever had a real existence or not.

We know of no country in which it is found at present; nor was it anywhere found in the age of Pliny; nor does he seem to have known the country where it ever had been found. He admits, indeed, its having been formerly dug out of the earth; but it is remarkable that in the very passage where he is mentioning by name the countries most celebrated for the production of different kinds of copper, he only says in general, concerning orichalcum, that it had been found in other countries, without specifying any particular country. Plato acknowledges, that orichalcum was a thing only talked of even in his time; it was nowhere then to be met with, though in the island of Atlantis it had been formerly extracted from its mine. The Greeks were in possession of a metallic

substance, called *orichalcum*, before the foundation of Rome; for it is mentioned by Homer and by Hesiod, and by both of them in such a manner as shows that it was then held in great esteem. Other ancient writers have expressed themselves in similar terms of commendation; and it is principally from the circumstance of the high reputed value of orichalcum that authors are induced to suppose the ancient orichalcum to have been a natural substance, and very different from the factitious one in use at Rome, and probably in Asia, and which it has been shown was nothing different from our brass.

But this conclusion cannot be validly drawn from their encomiums upon it; for at whatever time the method of making it was first discovered, both its novelty and scarceness, joined to its utility, would enhance its value; at least there can be no absurdity in supposing, that when first introduced it was greatly prized, even though it be granted that it possessed no other properties than such as appertain to brass.

Respecting the etymology of the word there is great diversity of opinions. Those who write it *aurichalcum* think it is composed of the Latin word *aurum*, "gold," and the Greek *χαλκος* "brass or copper." The most general opinion is, however, that it is composed of *ὄρος* "a mountain" and *χαλκος*, alluding perhaps to its being found in mountains or mountainous countries. The above account is chiefly extracted from a paper in the second volume of *Memoirs of the Literary and Philosophical Society of Manchester*, written by the present bishop of Landaff, Dr Watson, and communicated by Dr Percival. To this paper then we refer our readers who desire a more copious account of it. To the above two etymological meanings of the word we shall subjoin the following, mentioned by the learned bishop, and which, in our opinion, is equally well founded, and certainly as ingenious, as the other two.

The Hebrew word *Or*, *Aur*, signifies light, fire, flame; the Latin terms *uro* "to burn," and *aurum* "gold," are derived from it, inasmuch as gold resembles the colour of flame: and hence it is not improbable, that orichalcum may be composed of an Hebrew and a Greek term, and that it is rightly rendered, *flame-coloured copper*. In confirmation of this it may be observed, that the Latin epithet *lucidum*, and the Greek one *φαινον*, are both applied to orichalcum by the ancients.

ORIFICE, the mouth or aperture of a tube, pipe, or other cavity.

ORIGANUM, ORIGANY, or *Marjoram*: A genus of the gymnospermia order, belonging to the didynamia class of plants; and in the natural method ranking under the 42d order, *Verticillata*. There is a strobilus or cone collecting the calyces together. The principal species are, two hardy perennials and an annual for the open ground, and five perennials for the green-house: viz. 1. The vulgare, or wild pot-marjoram; 2. The heracleoticum, or winter sweet-marjoram. These are finely scented aromatics, excellent for culinary purposes, particularly for broths, soups, &c. they have likewise merit for medical uses, and for giving fragrance to ointments; so that the plants are proper both for kitchen and physic gardens, and may also be employed in the pleasure-ground as plants of variety. 3. The marjorana, or annual sweet-

Orichalcum
||
Origanum.

Orient

||
Origen.

marjoram, is an aromatic of the highest fragrance, is admirable for kitchen use, and excellent for nosegays; so is proper both for the kitchen and pleasure garden, but more particularly for the former. It is often called *knotted marjoram*, from the flowers growing in close knotted-like heads. The following mostly assume an undershrubby growth; frequently with abiding stalks, if they have shelter here in winter. 4. The dictamnus, or dittany of Crete. 5. The sipyleum or origanum of mount Sipylus. 6. The creticum, or Cretan origany. 7. The smyrnæum, or Smyrna origany. 8. The Ægyptiacum, or Egyptian origany. All these eight species of origanum flower in July and August; the flowers are small, monopetalous, ringent, universally hermaphrodite, and collected into verticilli round the stalks; succeeded by ripe seed in autumn; though in this country the annual marjoram and the three green-house sorts seldom perfect seed well, unless the autumn proves remarkably fine and warm: in default, however, of seed, the propagation of all the perennial sorts, both hardy and green-house kinds, is easily effected by slips of the roots, &c. And the seed of the annual sort is imported plentifully from France or Italy by the seed-dealers.

ORIENT, a harbour of France, in the province of Bretagne, in the bottom of the bay of St Lewis. Since the year 1720, a handsome town has been built here, where the East India company have large magazines. The English attempted to become masters of it in 1746, but miscarried. W. Long. 3. 22. N. Lat. 47. 45.

ORIENTAL PHILOSOPHY. See PHILOSOPHY.

ORIGEN, one of the most celebrated ecclesiastical writers, greatest geniuses, and most learned men of the primitive church, during the third century, was born at Alexandria in the year 185; and was surnamed *Adamantus*, either from his indefatigable application to study, or from the firmness he discovered amidst the torments he suffered for the faith. Leonidas his father trained him at home with great care, and made him apply to the study of the Holy Scriptures from his infancy, in which he made surprising progress. The son's inclination and turn suited exactly with the father's design; for he pursued his studies with a most extraordinary zeal and ardour: and, being endued with a quick apprehension and a strong imagination, did not content himself with that sense which at first presented itself, but farther endeavoured to dive into mysterious and allegorical explications of the sacred books. He would sometimes even puzzle his father, by too much soliciting him for recondite meanings; which obliged the good man to reprehend him a little,

and withal to advise him not to attempt to penetrate too far in the study of the holy scriptures, but to content himself with their most clear, obvious, and natural sense. Hence it appears, how early he was seized with that *furor allegoricus*, as a learned modern calls it, that rage of expounding the scriptures allegorically, which grew afterwards to be even a distemper, and carried him to excesses which can never be excused (A). He had afterwards in philosophy Ammonius the celebrated Christian philosopher, and St Clement of Alexandria for his master in divinity. At 18 years of age he succeeded that great man in the office of catechist; an important employment, which consisted in teaching divinity, and expounding the scriptures. Leonidas his father had suffered martyrdom the year before, during the persecution of Severus in 202; and Origen had shown such eagerness to follow his father to martyrdom, that his mother was obliged to hide his clothes to prevent his going abroad. Origen had a great concourse of auditors who attended his school, some of whom were of the faithful, and the others pagans. He confirmed and strengthened the first in their faith, and converted most of the others; and there were such a number of martyrs amongst his disciples, that it might be said, that he kept rather a school of martyrdom than of divinity. He taught the doctrines of Christianity to the girls and women as well as to the men; and taking in a too literal sense what Christ says of becoming voluntary eunuchs, castrated himself, to prevent his deserving or suffering scandal. He took a voyage to Rome in 211, in the beginning of Caracalla's reign, and under the pontificate of Zepherinus. At his return he published many works, by which he acquired an extraordinary reputation, that drew to him a great number of auditors. But Demetrius, bishop of Alexandria, conceiving a jealousy of him, endeavoured by various pretences to injure him. At length Origen went to Antioch, whither the empress Mammæa had sent for him to hear him discourse on the Christian religion. He did not however stay long there, but returned to Alexandria, where he continued to teach till the year 228, when he left that city, and travelled into Achaia. In that journey he went into Palestine, and was ordained by the bishops of that province at 42 years of age. His being ordained by foreign bishops without the permission of Demetrius, renewed that prelate's resentment against him; on which Origen hastily returned to Alexandria, to endeavour to mollify him: but Demetrius drove him from thence in 231, and caused him to be excommunicated, and even deposed in a council held in Egypt. Origen then retired to Cæsarea

3

(A) He is the first Christian (whose notions on this subject have come down to us) who believed in the restitution of all things. This is his sixth distinguishing tenet; to which is added this singular notion, that as Christ had been crucified in this world to save mankind, he is to be crucified in the next to save the devils. The other obnoxious tenets of Origen are these five: viz. 1. That in the Trinity the Father is greater than the Son, and the Son than the Holy Ghost. 2. The pre-existence of souls, which Origen considered as sent into mortal bodies for the punishment of sins committed in a former state of being. 3. That the soul of Christ was united to the world before the incarnation. 4. That the sun, moon, and stars, &c. were animated and endowed with rational souls. 5. That after the resurrection, all bodies will be of a round figure. It is probable that the mystic theology of the modern Quakers and other sects is derived from Origen. See *Mosheim Esch. Hist.* vol. 1st.

Origen. rea in Palestine, where he raised a celebrated school, and had St Gregory Thaumaturgus, and a great number of other persons who were illustrious for their virtue and learning, for his disciples. He afterwards travelled to Athens; and then, at the desire of Firmilianus, staid some time at Cæsarea in Cappadocia; whence he was invited into Arabia, to convince and bring back to the truth Beryllus bishop of Bostra, who maintained that the Word had no existence before his incarnation. Origen had the happiness to make him sensible of his mistake; and some years after was sent for into Arabia by an assembly of bishops, to dispute against the Arabians, who maintained that the souls of the dead remained in a state of insensibility till the general resurrection. At length the seventh persecution of the Christians began in the reign of Decius, and none were used with greater severity than Origen. He supported with incredible constancy the dreadful torments which the persecutors of the Christians invented against them; torments that were the more insupportable, as they were made to continue a long time, and as they took the greatest care to prevent his expiring in the midst of his tortures: but in the midst of the most excruciating torments, he discovered an heroic courage, and suffered nothing to escape him that was unworthy a disciple of Jesus Christ. He died at Tyre in 254, aged 69. He was the author of a great number of excellent works. The principal of those which have been handed down to us are, 1. A Treatise against Celsus, of which Spencer has given a good edition in Greek and Latin, with notes: this learned treatise has been translated into French by Elias Bouhereau, a protestant minister, born at Rochelle. 2. A great number of Homilies, with Commentaries on the Holy Scriptures. 3. *Philocalia*, and several other treatises. 4. Fragments of his Hexaples, collected by father Montfaucon, in two volumes folio. Of all Origen's books, the loss of the Hexaples is most to be regretted. This work was thus named from its containing six columns; in the first of which was the Hebrew text of the Bible; in the second, the same text in Greek characters; in the third, the Greek version of the Septuagint; in the fourth, that of Aquila; in the fifth, that of Symmachus; and in the sixth, Theodosian's Greek version. This admirable work gave the first hint for our Polyglot Bibles. 5. The book of Principles; of which we have only an incorrect Latin version. In all his writings he discovers a surprising degree of modesty, candour, and humility; a noble and sublime genius, profound learning, and vast erudition. His manners were extremely pure, and he had a warm zeal for spreading the truths and morals of the gospel.

Much has been written both for and against this celebrated father, both by his contemporaries and others: he has indeed suffered great abuse, which he did not deserve, and which we shall not retail; contenting ourselves with the following account of his character by Dupin, and some remarks on it by Dr Jortin. "Origen (says Dupin) had very quick parts, a very strong and enlarged imagination; but he relied too much on the vivacity of his genius, and often lost himself, out of too great earnestness to fathom and subtilise every thing. He had a very happy invention, and a more happy delivery of what he invented:

but he had not that exactness in his inventions, nor that gracefulness of delivery, as might be wished. He carried on his works with so great ease, that he is said to have dictated to seven or eight persons at a time; and he was so ready in expressing himself, that he made the greatest part of his homilies extempore: upon which account his style was not very correct or coherent. He had a vast memory, but often trusted too much to it. He was a person of most profound learning: he particularly studied Plato's philosophy, and was indeed too much addicted to it for a Christian. He understood likewise the doctrines of other philosophers. He applied himself mightily to the study of human learning. He was neither ignorant of history nor mythology; and he had as great a knowledge in all the profane sciences, as those who studied nothing else. But he particularly excelled in the knowledge of the Holy Scriptures, which he learned all by heart; and that he might neglect nothing for attaining a right understanding of the letter thereof, he carefully examined all the versions of the Bible, and compared them all together with the Hebrew text, subjoining a literal commentary upon the most difficult places. He was not very well skilled in the Hebrew; yet he knew enough of it to understand it, and to observe the difference of the text and the translations. Nevertheless, he did not adhere to the literal explication of the Bible, but thought it necessary, for the sake of gaining it credit with the heathens, who despised its plainness and simplicity, and of rendering it more useful to the world, to give mystical and allegorical interpretations of every thing in it."

Dr Jortin tells us, "That Origen was very learned and ingenious, and indefatigably industrious. His whole life from his early years was spent in examining, teaching, and explaining the Scriptures; to which he joined the study of philosophy and of all polite literature. He was humble, modest, and patient under great injuries and cruel treatment, which he received from Christians and Pagans: for though he ever had a considerable number of friends and admirers, on account of his amiable qualities and useful accomplishments, he was persecuted and calumniated by men, who had neither his learning nor his virtue, degraded from the order of presbyters, driven from his home, and excommunicated by one Demetrius bishop of Alexandria, who envied him, says Eusebius, for the reputation which he had gained. His inquisitive genius, and his mixing philosophy with Christianity, led him perhaps into some learned singularities and ingenious reveries; but he was by temper far from dogmatizing in such points, from fomenting schisms, and setting up himself for the head of a party. He lived in times when Christians were not so shackled with systems and determinations, as they were afterwards, nor so much exposed to disingenuous and illiberal objections; and had more liberty to pursue their inquiries and to speak their mind.—He was ever extremely sober and exemplary, practising what he preached to others; and he lived and died poor, and destitute even of common conveniences."—The most complete edition of his works is that of Father Delarue, a Benedictine, in Greek and Latin. The celebrated Montfaucon likewise published, in 2 vols folio, some remains and fragments of his *Hexapla*.

He

Origenians

Oriolus.

He ought not to be confounded with another ORIGEN, a Platonic philosopher, and the disciple and friend of Porphyry, who studied philosophy under Ammonius: perhaps this Origen was the founder of the ORIGENIANS.

ORIGENIANS (*Origeniani*), ancient heretics, who even surpassed the abominations of the Gnostics.

Epiphanius speaks of them as subsisting in his time; but their numbers, he says, were inconsiderable. He seems to fix their rise about the time of the great Origen; but does not say that they derived their name from him. On the contrary, he distinguishes them from the *Origenists*, whom he derives from Origen *Adamantius*; adding, indeed, that they first took their name from one Origen; by which he intimates, that it was not the great Origen. And St Augustine expressly asserts, that it was another. Their doctrines were shameful: they rejected marriage; they used several apocryphal books, as the acts of St Andrew, &c. and endeavoured to excuse their open crimes, by saying, that the Catholics did the same in private.

ORIGENISTS, in church-history, a Christian sect in the fourth century, so called from their drawing their opinions from the writings of Origen. The Origenists maintained, that the souls of men had a pre-existent state: that they were holy intelligences, and had sinned in heaven before the body was created: that Christ is only the son of God by adoption; that he has been successively united with all the angelical natures, and has been a cherub, a seraph, and all the celestial virtues one after another; that, in future ages, he will be crucified for the salvation of the devils, as he has already been for that of men; and that their punishment, and that of the damned, will continue only for a certain limited time.

ORIGINAL, a first draught or design of any thing, which serves as a model to be imitated or copied.

ORIGINAL Sin, the crime of eating the forbidden fruit, of which, it is said, all mankind are guilty at their conception, by the imputation of Adam's transgression; which is accounted for by supposing, that Adam, as he was to be the father, was also the federal head and representative, of the whole human race: and that, on his sinning, all that were to spring from him partook of his crimes. See THEOLOGY, &c.

ORIGUELA, a town of Spain in Valentia. It is seated between the mountains on the banks of the river Segura, in a place fortified by nature, and in a fertile plain, abounding in all things, especially corn. It is surrounded with pleasant gardens, and has a university and a bishop's see. It is defended by an old castle; and is the capital of a government independent of Valentia, whose jurisdiction extends 30 miles in length and 15 in breadth. W. Long. o. 56. N. Lat. 38. 22

ORILLON, in fortification, is a small rounding of earth, faced with a wall; raised on the shoulder of those bastions that have casemates, to cover the cannon in the retired flank, and prevent their being dismounted by the enemy. See FORTIFICATION, p. 364.

ORIOLOUS, or ORIOLE, in ornithology, a genus belonging to the order of picæ. The bill in this genus is strait, conic, very sharp-pointed; edges cultrated, inclining inwards; mandibles of equal length. No-

strils small, placed at the base of the bill, and partly covered. Tongue divided at the end. Toes, three forward, one backward; the middle joined near the base to the outmost one.—These birds are inhabitants of America, except in a few instances; are a noisy, gregarious, frugivorous, granivorous, and voracious race, very numerous, and often have pensile nests. The several species (which are very numerous, for Mr Latham enumerates and describes 45) seem to be principally distinguished by their colour. We have given engravings of two of them, the sharp-tailed and Baltimore oriole.

Plate
CCCL

1. The sharp-tailed oriole is about the size of a lark: The bill is dusky; the crown is brown and cinereous; the cheeks are brown, bounded above and below with deep dull yellow. The throat is white; the breast, sides, thighs, and vent, are a dull pale yellow, spotted with brown; the belly is white; the back is varied with ash-colour, black and white; the wing-coverts are dusky, with ferruginous edges. The quills are also dusky; the tail consists of narrow sharp pointed feathers, of a dusky colour tinged with olive, and obscurely barred; and the legs are pale brown.

The other species, which we shall describe, is called the *Baltimore* bird by Catesby and Latham, *le Baltimore* by Buffon, the *oriolus Baltimore* by Linnæus, and the *Baltimore oriole* by Pennant, and is an inhabitant of North America; which country it quits before winter, and probably retires to Mexico, the *xochitotl* of Fernandez seeming to be of the same species. The head, throat, neck, and upper part of the back of the male, is described to be black; the lesser coverts of the wings orange; the greater black, tipped with white; the breast, belly, lower part of the back, and coverts of the tail, of a bright orange; the primaries dusky, edged with white; the two middle feathers of the tail black; the lower part of the same colour, the remaining part orange; and the legs black. The head and back of the female is orange, edged with pale brown; the coverts of the wings of the same colour, marked with a single bar of white; the under side of the body and coverts of the tail yellow; the tail dusky, edged with yellow. The length both of the male and female is seven inches.—This bird suspends its nest to the horizontal forks of the tulip and poplar trees, formed of the filaments of some tough plants, curiously woven, mixed with wool, and lined with hairs. It is of a pear shape, open at top, with a hole on the side through which the young discharge their excrements, and are fed. In some parts of North America, this species, from its brilliant colour, is called the *fiery hanging nest*. It is named the *Baltimore bird* from its colours, resembling those in the arms of the late Lord Baltimore, whose family were proprietors of Maryland.

There are several other species of the oriole, all inhabitants of North America. These, according to Mr Pennant's enumeration, are the white-backed, the bastard, the black, the brown-headed, the rusty, the white-headed, the Hudsonian white-headed, the olive, the yellow-throated, the unalaschka, the sharp-tailed, and the red-wing. This last species is known in America by the name of the *red-winged starling* and the *swamp black-bird*. Although they appear at New York only from April to October, they probably continue through the whole year in the southern parts; at least,

Catesby

Oriolus. Catesby and Latham make no mention of their departure. They are seen at times in such prodigious flocks, as even to obscure the sky. They were esteemed the pest of the colonies, making most dreadful havock among the maize and other grain, both when new sown and when ripe. They are very bold, and not to be terrified by a gun; for notwithstanding the sportsman makes slaughter in a flock, the remainder will take a short flight, and settle again in the same field. The farmers sometimes attempt their destruction, by sowing the maize before they sow it in a decoction of white hellebore. The birds that eat this prepared corn, are seized with a vertigo, and fall down; which sometimes drives the rest away. This potion is particularly aimed at the purple grackles or purple jackdaw, which consorts in myriads with this species, as if in conspiracy against the labours of the husbandman. The fowler seldom fires among the flocks without killing some of each. They appear in greatest numbers in autumn, when they receive additions from the retired parts of the country, in order to prey on the ripened maize. Some of the colonies established a reward of three-pence a dozen for the extirpation of the jackdaws; and, in New England, the intent was almost effected at the cost of the inhabitants; who discovered, at length, that Providence had not formed these seemingly destructive birds in vain. Notwithstanding they caused such havock among the grain, they made ample recompense, by clearing the ground of the noxious worms* with which it abounds. As soon as the birds were destroyed, the reptiles had full leave to multiply; and the consequence was the total loss of the crops in 1749, when the New Englanders, too late repentants, were obliged to get their hay from Pennsylvania, and even from Great Britain.

* The Caterpillar of the *Bruchus* Pisi, or Pease Beetle, in particular.

There is besides another oriole of this species, called the *bastard Baltimore*: Its size is that of the true Baltimore, but it measures somewhat less in length: the bill is lead-coloured; the forehead and cheeks black mixed with yellow; the hind head and nape are olive grey, marked with a few spots of black; the upper part of the back is the same, but somewhat duller; the lower part of the back, the rump, fore-part of the neck, breast, belly, sides, thighs, upper and lower tail-coverts, and under the wings, are orange-yellow, but brightest on the breast and tail-coverts; the lesser wing-coverts are deep brown; the greater are the same, tipped with dirty yellowish white: the quills are brown, bordered on both edges with white; the two middle tail-feathers are olive, then blackish, marked at the end with a longitudinal yellowish spot; the next on each side are olive and black, confusedly mixed; and the four outer ones are of a yellowish olive: the legs and claws are bluish. They inhabit North America.

There seems to be great confusion and uncertainty in the true and bastard Baltimores and their females; most likely at last they may, the whole of them, turn out mere varieties of one single species, all of them perhaps referable to one or other sex of the true Baltimore, in the different stages of life.

It would be absurd, and indeed impossible, without enlarging the article beyond all bounds, to describe each particular variety; we shall therefore refer those of our readers who wish for a more copious account,

to Mr Latham's *Synopsis of Birds*, where the whole genus is more minutely and more accurately described than any where else that we know.

ORION, in fabulous history, was the son of Jupiter, Neptune, and Mercury. For as these gods were visiting the earth, they entered the house of Hyrieus, a native of Tanagra, in Boeotia, under the character of benighted travellers, on account of his being famed for hospitality to strangers. Hyrieus treated them in the best manner in his power; and even killed an ox, the only one he had, for their entertainment. At which the gods were so pleased, that they offered the old man whatever he would ask; who letting them know that he desired nothing so much as a son, they, to gratify his wish, caused the ox's hide to be brought before them, in which, having deposited their urine, they bid him keep it under ground for nine months. He then dug for the skin, and found in it a beautiful child, whom he called *Urion ab urina*. The name was afterwards changed into Orion by the corruption of one letter, as Ovid observes: *Perdidit antiquum litera prima sonum*. Orion soon became conspicuous; and Diana took him among her attendants, and even became deeply enamoured of him. His gigantic stature, however, displeased CEnopion king of Chios, whose daughter Hero or Merope he requested in marriage. The king, not willing to deny him openly, promised to make him his son-in-law as soon as he delivered his island from wild beasts. This task, which CEnopion supposed to be impracticable, was soon performed by Orion, who eagerly demanded his reward. CEnopion, on pretence of complying, intoxicated his illustrious guest, and put out his eyes on the sea-shore, where he had laid himself down to sleep. Orion found himself blind when he awoke. He went, directed by the sound, to a neighbouring forge, where he placed one of the workmen on his back, and by his directions went to a place where the rising sun was seen with the greatest advantage. Here he turned his face towards the luminary; and, according to report, he immediately recovered his eye-sight, and hastened to punish the perfidious cruelty of CEnopion. Orion was reported to be an excellent workman in iron, and to have fabricated a subterraneous palace for Vulcan.

Aurora, whom Venus had inspired with love, carried him away into the island of Delos, that she might enjoy his company with greater security; but Diana, who was jealous of this, destroyed him with her arrows. Some say, that Orion had provoked Diana's resentment, by offering violence to Opis, one of her female attendants; or, as others say, because he had attempted the virtue of the goddess herself. According to Ovid, Orion died of the bite of a scorpion, which the earth produced to punish his vanity, in boasting that no animal on earth could conquer him. Some say that Orion was son of Neptune and Euryale, and that he had received from his father the privilege and power of walking over the sea without wetting his feet. Others assert, that he was a son of Terra, like the rest of the giants. He had married a nymph called *Sida*, before his connection with the family of CEnopion; but *Sida* was the cause of her own death, by boasting herself fairer than Juno. Diodorus says, that Orion was a celebrated hunter, superior to the rest of mankind, by his strength and uncommon stature.

Orion.

He built the port of Zancle, and fortified the coast of Sicily against the frequent inundations of the sea, by heaping a mound of earth called *Pelorum*, on which he built a temple to the gods of the sea. After death Orion was placed in heaven, where one of the constellations still bears his name. The constellation of Orion was placed near the feet of the bull. It was composed of 17 stars in the form of a man holding a sword; for which reason the poets often speak of Orion's sword. As the constellation of Orion, which rises about the 9th day of March, and sets about the 21st of June, is generally supposed to be accompanied at its rising with great rains and storms, it has acquired the epithet of *dyuofus* given it by Virgil. Orion was buried in the island of Delos; and the monument which the people of Tanagra in Bœotia showed, as containing his remains, was nothing but a Cenotaph. The daughters of Orion distinguished themselves as much as their father; and when the oracle had declared that Bœotia should not be delivered from a dreadful pestilence before two of Jupiter's children were immolated on the altars, they joyfully accepted the offer, and voluntarily sacrificed themselves for the good of their country. Their names were Menippe and Metioche. They had been carefully educated by Diana; and Venus and Minerva had made them very rich and valuable presents. The deities of hell were struck at the patriotism of these two females; and instantly two stars were observed to arise from the earth, which still smoked with their blood, and they were placed in the heavens in the form of a crown. According to Ovid, their bodies were burned by the Thebans, and from their ashes arose two persons, whom the gods soon after changed into constellations.

ORION, in astronomy, one of the constellations of the southern hemisphere. The word is formed from N° 253.

the Greek *γενν*, "to make water;" the ancients supposing that it raised tempests at its rising and setting. The stars in the constellation Orion, in Ptolemy's catalogue are 37, in Tycho's 62, in the Britannic catalogue 80.

Oristagni
Orkney.

ORISTAGNI, an ancient town of the island of Sardinia, with an archbishop's see. It is pretty large and well fortified; but thinly inhabited, on account of the unhealthy air: it is seated on the western coast, in a bay of the same name, in E. Long. 8. 58. N. Lat. 39. 55.

ORIXA, a kingdom of Indostan, lying on the Gulph of Bengal. It is divided from the ancient kingdom of Golconda, by a ridge of mountains, the end of which runs a little way into the Sea. It is fertile in corn and cattle, and they have several good towns and harbours on the coast; there are also manufactures of different kinds carried on throughout the kingdom. The prince is a Gentoo, who pays to the Great Mogul a tribute to the amount of about 12,000*l*. yearly.

ORIXA, in botany: A genus of the monogynia order, belonging to the tetrandria class of plants; and in the natural method ranking with those that are doubtful. The calyx is quadripartite; the petals are four, plain and lanceolated; the stigma globular; the capsule and seeds unknown. Of this there are two species, viz. 1. The frutescens; 2. Japonica, both natives of Japan.

ORKNEY ISLANDS, called *Orcades* by the ancients, certain islands on the north of Scotland (A), from which they are separated by a frith 20 miles in length and 10 in breadth.

As writing seems to have been unknown in the northern islands, during those periods which the antiquarian would call the most curious and important, the

(A) The northern isles of Scotland have been often mentioned by ancient authors, and called by different names from those they now go by; so that it is sometimes difficult to know which of them are meant. The ancient name, however, of the islands, which are the subject of this article, has never been disputed. The *Ebuda*, it is agreed, are the modern Hebrides; and there is no doubt of the ancient *Orcades* being the same with the Orkneys. Of Thule, however, we are not so certain; and whether it means the Shetland isles, or Iceland, remains undetermined. Pythias, a Massilian, pretends to have visited these islands, and particularly Thule; but he does not mention the *Orcades*. The geographer Mela, who was cotemporary with the emperor Claudius, is the next writer who describes the northern islands. Of the Orkneys he gives a remarkably just account, and says they were thirty in number, with narrow channels between them; but he is less accurate with respect to the rest. Pliny the Elder is the third who mentions the northern islands. He makes the number of the Orkneys to be forty, and of the Hebrides to be thirty. Solinus, the supposed cotemporary with Agricola, is the next after Pliny. In his time, and according to his account, these islands had not a single inhabitant, and were overgrown with rushy grass. It seems on the whole to be pretty generally allowed, that Julius Agricola, who first sailed round Britain, discovered the *Orcades* till then unknown, and subdued them*. Claudius was so far from reducing them (as is asserted by Jerom in his Chronicle), that Juvenal has these lines in Hadrian's time:

*Arma quid ultra
Littora Juverna promovimus et modo captas
Orcades, et minima contentos nocte Britannos.* SAT. II. 160.

In vain, O Rome, thou dost this conquest boast
Beyond the *Orcades*' short-nighted coast. DRYDEN.

Tacitus informs us, that, before the completion of the first century, the Roman fleets sailed round Scotland, and landed in the *Orcades* to refresh.

* The Romans, never that we know, visited these islands again but once, which was probably after Honorius had defeated the Saxons in the seas of Orkney.

Orkney. the chief part of our information respecting the ancient state of the Orkneys must be derived from tradition and conjecture. Their mountainous situation, and natural jealousy of strangers, obstructed the progress both of knowledge and religion: for instead of receiving either from their southern neighbours, we are certain that they derived their knowledge of Christianity from Norway, during the expeditions undertaken by that nation (in the end of the 10th or beginning of the 11th century) to make settlements in the Orkneys and on the coast of Caithness (A). The best (because it is in all probability the most authentic) account that we have of this early part of the history of the Orkneys, seems to be in Torfæus. See TORFÆUS. His history must, doubtless, have been compiled chiefly from tradition, which is far from being the surest mode of information. During the time of Gregory the Great, when by his policy the Picts were driven from other parts of Scotland, they came to the Orcades as an asylum; but it does not appear, and is far from being probable, that they received a favourable reception, for many of them migrated to Shetland, and from thence to the opposite coasts of Norway. A particular history of these islands during those early ages would afford little entertainment, because its authenticity is at least doubtful. These islands were at various times harassed and plundered by adventurers from Scandinavia; and the Norwegian princes frequently laid the inhabitants under tribute.

We have said that the Christian religion was transported to the Orkneys from Norway, and that this happened in the beginning of the 11th century. About which time Sigurdus possessed the entire dominion of those isles, and for many years exercised all the powers of a monarch in the north. At the same time

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Christianity had dawned on Scandinavia, and had become the established religion in the seat of government in Norway. Its doctrines interwove themselves with the policy of the nation: its principles, so nearly interesting to human happiness, made their farther publication an object of much moment to the adventurous princes, and gave a new law to their enterprizes. While the power of these principles was acting with original force upon the minds of the people, and their zeal rendered them ambitious of any exploit, whereby they could diffuse their influence; Olaus prince of Norway equipped a squadron destined to carry the knowledge of the gospel to other shores. On this pious adventure he was accompanied not only by numbers of all ranks, whom, as usual, a love of enterprise invited; but by many persons of distinguished knowledge and abilities, men of sincere piety, who had become particularly well acquainted with the Christian doctrines, and entertained a deep sense of their infinite importance. These entered into the fleet, joyful in the prospect of spreading the truths which they revered through yet unenlightened countries; and the squadron soon appeared off the Orcades. Olaus got Sigurdus on board of his fleet, with his son, and but a few attendants, and, as the heir of Harold, he claimed all the provinces over which Sigurdus reigned; and at the same time he ordered him to renounce and abjure the religion of his fathers, and to embrace Christianity. Delay was not permitted; Christianity was forced upon him and his subjects; and, on the departure of Olaus, he carried the son of Sigurdus as an hostage for what he had engaged; which was to give honourable protection to all those holy men who might choose to reside in those parts for the purpose of instructing the people in the nature of the Christian doctrines; for many of the more intelli-

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gent

(A) It has been asserted, that the Orkneys, as well as the hills of Shetland, were originally peopled from Norway, in the ninth, tenth, or eleventh century. Others again imagine, with as much probability, that the Picts were the original inhabitants, and call Orkney the ancient kingdom of the Picts. Certain singular houses, now overgrown with earth, are called *Pict's houses*; and the Pentland frith (formerly *Pightland* or *Pictland*) is supposed to retain their name. Claudian's lines, cited by Mr Camden, prove, that the Picts, with some other German colony, particularly the Saxons, were at that time in possession of these isles; and so Ninnius expressly says. Many of the present inhabitants use the Norse language, which differs but little from the Teutonic or Pictish language, and was in general use to the last century; but except in Foula, where a few words are still known by the aged people, it is quite lost. The English tongue, with a Norwegian accent, is that of these islands; but the appearance of the people, in their manners and genius, evidently show their northern origin. Ninnius, c. 5. puts their arrival at Orkney not less than 900 years after the coming of Brutus into Britain, which he says was in the time of Eli the Jewish high-priest. The ancient surnames are of German original. Some date the first settlement of the Picts here A. M. 4867; when, emigrating from their native country, they planted a colony in Orkney, and thence crossing Pictland frith, and traversing Caithness, Ross, Murray, Marr, and Angus, settled in Fife and Lothian; thence called by our writers *Pictlandia*. Others think they did not settle here till the time of Reuther king of Scotland, when the Picts, joining with a party of the Scots, were repulsed, with the loss of their king Gethus, and many of the Picts and Scottish nobility, with great slaughter: but the invasions of the Britons, at the same time, constrained the Picts to fly to Orkney, where they chose for king Gothus their deceased sovereign's brother, till they were able to return to Lothian, and drive out the Britons. After this they flourished here, and were governed by kings of their own. There still remains a place called Cunningsgar, the dwelling place of the minister of Sandwick, whose name and form bespeak it the residence of some of them. But no traces of their history remain, except the name of Belus, in ancient characters, on a stone in the church of Birfa, where still is to be seen one of the principal palaces. This government probably subsisted till the subversion of the Pictish kingdom in Scotland, A. D. 839, by Kenneth II. king of Scotland. On the whole, however, the time of the discovery and population of the Orkneys is certainly unknown. Probably it was very early; for we are told that they owe their name to the Greeks:

Orcades has memorant dictas a nomine Græco.

CLAUDIAN.

Orkney. gent and religious men who had come from Norway with Olaus, remained in the Orcades and in the north of Scotland, to fulfil their pious resolution of spreading the light of the gospel there. Olaus, with the rest of his followers, failed on another expedition towards the frith of Moray. The death of Kindius his son, which happened soon after Olaus's return to Norway, released Sigurd from his engagements with him; and he entered into one with Malcolm II. one of whose daughters he had in marriage, and by whom he had a son, Torphinus. Torphinus's bravery, magnificence, generosity, and hospitality, endeared him to the inhabitants; and he ruled without controul for many years, till Ronald, a grandson of Sigurd, who had lived in Norway, and who was esteemed the rightful heir of the earldom of Orkney, made a successful descent upon it. Torphinus wished to give him battle; and in a sea-fight, with the assistance of some ships from Arminius, a man who had filled some of the first places in Norway, he totally defeated him. By courting the friendship of that court, his dominions remained quiet for the greater part of his life; the latter part of which was no less eminent for establishing salutary laws, and encouraging the arts of industry, than the former had been distinguished for military fame and success in the exploits of war. He lived to an advanced age, until after Malcolm III. had ascended the throne of Scotland. Torphinus had built a sumptuous church in Byrfa, where the first bishops of Orkney resided. In the decline of life he retired to that island, and, finishing his days with exemplary piety, was with much solemnity interred in the temple which he had raised. His country long lamented the loss of so celebrated a ruler, who had established security in it, through the influence of his laws, and had taught it to enjoy the arts and blessings of peace. He left two sons, Paul and Erland, who through the whole of their lives amicably shared both in the honours and administration of their father's extensive domain. During this period, the northern counties are said to have arrived at a very superior degree of cultivation and improvement, which became equally conspicuous in the richness of their lands, and in the mildness of their dispositions. Their sons, however, did not both inherit their father's virtues. Magnus, the son of Erland, was pious and peaceable; a great promoter of religion, and anxious in patronising the Romish missionaries, and in protecting the establishments of Christianity: but Hacon, the heir of Paul, was vehement, wild, and impatient of restraint. He saw how Magnus was revered, and envy drove him to revenge; for, by the most deliberate and deceitful villainy, he got Magnus into his power, and murdered him without mercy. The latter part of his life was spent in penance, and in improving his dominions.

Magnus's singular piety, and the manner of his unfortunate death, were so well represented at the court of Rome, that he was canonized. Hacon left two sons, Paul the Silent, and Harold the Orator. Caithness came to Harold, and the Orkneys were governed by Paul.

Ronald, a descendant of St Magnus, an elegant and accomplished youth, appeared at the court of Norway, and was supported in a claim upon the Orkneys, as the heir of the canonized martyr. He sent

messengers to Paul, and offered to share the government with him; but this proposal was refused, and the ambassadors were treated with great contempt. They, however, found persons of power disposed to second their master's views; who soon after their return set out, and vowed, if he succeeded, to build a magnificent church, and to dedicate it to St Magnus. All seemed satisfied with the enterprise; and, full of hope, the fleet set sail. Paul in the mean time put himself in a state of defence. By very artful manoeuvres, however, Ronald obtained his purpose, and willingly shared his sovereignty with Harold, the legal heir of Paul. They lived amicably together; and on the assassination of Ronald, which was accomplished by a proud chieftain, who thought himself insulted, he was buried with great pomp. Harold now fully possessed the unrivalled sovereignty of the north, and lived long to enjoy it. We find that in 1196 he was able to bring 7000 men to the field, and a body of cavalry, against the army of William king of Scotland, but was immediately defeated. In the next year, the Caithnessians rebelled again, headed by one Roderic, and Torphinus, son to Harold. The king met and defeated them near Inverness. Roderick was slain; and William, seizing on Harold in the extremity of Caithness, detained him till Torphinus surrendered himself as an hostage; but on some new treasons of the father, the king, according to the barbarity of the times, caused the eyes of the unhappy youth to be put out; and had him emasculated, of which he soon perished in prison. Harold died in the 73d year of his age; and with him ended, in its earls, the independent sovereignty of the north of Scotland. The Norwegians seem to have been in possession of these isles as late as 1266; for then Magnus IV. king of Norway, being worsted in war with the Scots, yielded them to Alexander III. king of Scotland by treaty, and Haquin king of Norway confirmed the possession of them to king Robert Bruce in the year 1312. Lastly, in 1464, Christian I. king of Norway and Denmark, when he gave his daughter in marriage to James III. king of Scotland, transferred all his right to them to his son-in-law and his successors; to make which more binding the Pope's confirmation was obtained. We are told by some, that Magnus sold them to Alexander for the sum of 4000 merks Sterling, and a yearly acknowledgment of 100 merks.

They are about 30 in number; but many of them are uninhabited, the greater part being small, and producing only pasturage for cattle. The principal islands are denominated by the names of *Mainland*, *South Ronaldsba*, *Swinna*, *Flotta*, *Copinsba*, *Strupensba*, *Stronsa*, *Sanda*, &c. the terminations in *a*, or *ba*, being generally given in the Teutonic to such places as are surrounded by water. The currents and tides flowing between the islands are extremely rapid and dangerous. Near an island called *Swinna* are two great whirlpools, called the *wells of Swinna*, which are counted dangerous by mariners, especially in a calm. When sailors find themselves sucked into the vortex, it is said they throw out a barrel, or some bulky substance, which smooths the water till it is sucked down and thrown up at a considerable distance, during which time the ship passes over in safety. But when there is a breeze of wind, these whirlpools

may.

Orkney. may be crossed without any danger. The largest of these islands is called *Pomona*, in length 33, and in breadth 9 miles, containing 9 parish-churches, and 4 excellent harbours.

The air of these islands is moist, on account of the neighbourhood of the sea; and frost and snow do not continue long. In some places the soil is bare and mountainous, and in others sandy and barren; however, many of the islands produce large crops of barley and oats, but no wheat or other grain excepting what is inclosed in gardens. These, when duly cultivated, produce all kinds of kitchen herbs and roots, bringing even fruit-trees to maturity; but out of them, in the open country, there is scarce a tree or shrub to be seen, except juniper, wild myrtle, heath, and the *cyur-hodon*: yet this deficiency cannot be imputed to the poverty of the soil, or the nature of the climate; for the trunks of large oaks are frequently dug up in the marshes. This is likewise the case in the most barren parts of the Highlands of Scotland, where not a shrub is to be seen above the surface of the earth: nay, the inhabitants frequently find, deep in the earth, the roots of large trees, evidently exhibiting marks of the ax by which they were felled; so that these northern parts must have undergone some strange revolutions. The Orkneys produce great variety of herbs and berries, grass and corn, which last is exported as far as Edinburgh. In some of the islands, the natives have discovered mines of tin, lead, and silver, though none of them are wrought to any advantage; in others, we find abundance of mark, grey and red slate, quarries of freestone, and even of marble and alabaster. When the wind rages to any violence, the sea throws in plenty of timber, torn from other countries; and, not unfrequently, the people find large pieces of ambergrease. The fresh water in these islands is very pure and limpid; and, though there are no large rivers in the Orkneys, the ground is well watered with lakes and pleasant rivulets, that not only serve to turn their mills, but also abound with trout of the most delicate flavour.

Besides the abundance of little horses, black cattle, sheep, swine, and rabbits, the inhabitants of the Orkneys rear all sorts of domestic animals and tame poultry. Their heaths and commons yield plenty of red deer, and all sorts of game; partridges, grouse, heath-cocks, plover, duck, teal, and widgeon: the sea-coast teems with seals and otters; and are visited by whales, cod, ling, tusk, herrings, and all manner of fish: on the shore they find *spermaceti*, *os sepia*, and a great variety of shells and corallines, with a multitude of oysters, remarkably large muscles, crabs, and cockles. The rocks are covered with sea-fowl, wild geese, solan geese, barnacles, eagles, hawks, and kites. With respect to the barnacles, or, as the natives call them, the *cleck geese*, they are said to be found in shells sticking by the bills to trees, in several islands. Martin affirms he has seen them in this situation, but could not perceive them alive; and indeed the whole account of their generation and production, exhibited by the northern naturalists, is absurd and unphilosophical. The Orkney eagles are so strong, that, according to the reports of the country, they have been known to carry away young children in their talons. Certain it is, they make such havock among

the lambs, that he who kills an eagle is intitled by law to a hen from every house in the parish where it was killed. The king's falconer visits these islands every year, in order to fetch away the young hawks and falcons from their nests among the precipices: he enjoys a yearly salary of twenty pounds, and may claim a hen or a dog from every house in the country, except those that are expressly exempted from this imposition.

The gentry of the Orkneys are civilized, polite, and hospitable; and live like those of Scotland, from whom they are chiefly descended. They live comfortably, are remarkably courteous to strangers, and drink a great quantity of wine, with which their cellars are generally well stored. Indeed the inhabitants of the Orkneys may be now justly deemed a Scotch colony. They speak the language, profess the religion, follow the fashions, and are subject to the laws, of that people. They are frugal, sagacious, circumspect, religious, and hospitable. Their mariners are remarkably bold, active, dexterous, and hardy. Many surprising instances of longevity occur here, as well as in Shetland, of persons living to the age of 140. The Orkney women are generally handsome and well shaped, and bring forth children at a very advanced age. In the Orkneys, some particular lands are held by a tenure called *Udal Right*, from *Ulcus*, or *Olaus*, king of Norway, who farmed the lands, on condition of receiving one-third of the produce; and this right devolved in succession, without any charter granted by the sovereign. The inhabitants of Orkney, instead of measuring their corn, weigh it in pismores or pundlers. Their least denomination is a mark, consisting of 18 ounces, and 24 marks make a lispound, which is a Danish quantity. The poorer sort of people in the Orkneys appear very meanly habited, with a piece of seal-skin instead of shoes; and living chiefly on salt-fish, are subject to the scurvy. They are much addicted to superstitious rites; in particular, interpreting dreams and omens, and believing in the force of idle charms. The islands of Orkney, we have already observed, produce very bold, able, and hardy mariners. The common people, in general, are inured to fatigue, and remarkably adventurous, both in fishing during rough weather, and in climbing the rocks for the flesh, eggs, and down of sea-fowl. Formerly, while they were exposed to the invasions of the Norwegians, or western islanders, every village was obliged to equip a large boat well manned; and all the fencible men appeared in arms, when the alarm was given by the beacons lighted on the tops of the rocks and highest mountains. These beacons, known by the name of *ward-hills*, are still to be seen in every island. Their corn land they inclose with mud or stone walls, to preserve it from the ravages of their sheep, swine, and cattle, which wander about at random, without being attended by herdsmen: their ordinary manure, especially near the sea-coast, is sea-weed, which they carefully gather and divide into equal portions. Their sheep are marked on the ears and nose; but so wild, that when they have occasion to shear them in the month of May, they are obliged to hunt every individual, with dogs trained for that purpose. Their manner of catching sea-fowl is curious and particular.

Orkney.

Under the rock where these fowls build, they row their boat, provided with a large net, to the upper corners of which are fastened two ropes, lowered down from the top of the mountain by men placed in that station. These hoisting up the net, until it be spread opposite to the cliffs in which the fowls are sitting, the boatmen below make a noise with a rattle, by which the fowls being frightened, fly forwards into the bosom of the net, in which they are immediately enclosed and lowered down into the boat; others practise the method used in Iceland and Norway, and are lowered down by a single rope from the summit of the mountain; this is the constant way of robbing the hawk's nest. See *BIRD-catching*. In these islands some strange effects are produced by thunder and lightning. In the year 1680, the lightning entered a cow-house, in which 12 cows stood in a row, and killed every second beast as she stood, and left the rest untouched. The distempers that prevail mostly in the Orkneys are agues, consumptions, scurvy, and itch. The agues, which abound in the spring, the natives cure with a diet-drink of bitters and antiscorbutics infused in ale: for phthical complaints they use the plant arby, and the caryophyllus marinus boiled with sweet milk.

The isles of Orkney and Shetland compose one stewartry, and send one member to the British parliament. The right of superiority to the Orkneys was dismembered from the crown by the union parliament, and granted for a certain yearly consideration to the earl of Morton, by Queen Anne, who appointed him hereditary steward and justiciary. This nobleman possesses the power of creating certain judges, called *bailiffs*. There is one of these established in every island and parish, with power to superintend the manners of the inhabitants, to hold courts and determine civil causes, according to the laws of Scotland, to the value of ten pounds Scots money, amounting to 16 s. 8 d: but all contests of higher import are referred to the decision of the steward or his deputy, who resides at Kirkwall, which is the seat of justice. Subservient to the bailiffs are six or seven of the most reputable and intelligent inhabitants, who oversee the conduct of their fellows, acting as constables, and make report of all enormities to the bailiff; who causes the delinquent to be apprehended and punished, if the crime be within the extent of his judicial power; otherwise he transmits him to Kirkwall, where he is tried by the steward. The Protestant religion prevails in the isles of Orkney, according to the rites and discipline of the kirk; these, and the isles of Shetland, constituting one presbytery, which assembles at Kirkwall. The country is divided into 18 parishes, containing 31 churches, and above 100 chapels.

The trade of the Orkneys is not at present very considerable, though it might be extended to great advantage. They supply with fresh provisions, for ready money, the ships and vessels that touch upon the coast in the course of northern voyages, or in their passage from the East Indies, when they go north about Ireland and Scotland, in time of war, to avoid the privateers of the enemy. They are also visited by those engaged in the herring-fishery, though there is not such a resort on this account to these islands as to the isles of Shetland. Nevertheless, a good number of

Orkney.

boats from the western parts of Scotland, as well as from Londonderry, Belfast, and other parts of Ireland, fish for herring as far north as the Leuze, and supply the Orkneys with tobacco, wine, brandy and other spiritous liquors, cloths, and divers manufactures. These they exchange for fish, and oil extracted from porpoises, seals, and other sea-animals. The people of Orkney export annually great numbers of black cattle, swine, and sheep; together with large quantities of corn, butter, tallow, salt, and stuffs made in the country, over and above the skins of seals, otters, lambs, and rabbits, down, feathers, writing-quills, hams, and wool; yet all these articles would, in point of profit, fall infinitely short of their herring-fishery, were it prosecuted with industry, economy, and vigour. As there are no merchants in the Orkneys at present who export fish on their own account, what herrings are taken, they sell to the Dutch or Scotch dealers in and about Inverness. They generally fish for herring on the west side of the Orkneys; and are therefore more remote from markets than those who are employed in the same manner on the coast of Shetland. In the Orkney islands they see to read at midnight in June and July; and during four of the summer months they have frequent communications, both for business and curiosity, with each other, and with the continent: the rest of the year, however, they are almost inaccessible, through fogs, darkness, and storms. It is a certain fact, that a Scotch fisherman was imprisoned in May, for publishing the account of the prince and princess of Orange being raised to the throne of England the preceding November; and he would probably have been hanged, had not the news been confirmed by the arrival of a ship.

We may reckon among the curiosities of the Orkneys, the *Phaseoli*, commonly known by the name of *Molucca beans*, and sometimes they are called *Orkney beans*. They are a sort of fruit found on the shore of the Orkney islands, being thrown on them by storms of westerly wind. They are of several distinct species, and are none of them the produce of those islands, nor of any places thereabout, but are probably of American origin, many of them being plainly natives of Jamaica, and other islands of the Indies.

They are found principally on those coasts which are most exposed to the waves of the great ocean, and are on these so plentiful, that they might be gathered in large quantities, if of any value; but the only use they are put to, is the making of snuff-boxes out of them. Sir Robert Sibbald, and Mr Wallace, in their accounts of Scotland, have both named them *Mollucca BEANS*. Many strange fishes and curious shells are also frequently cast up by the ocean: of these last a vast variety are preserved for adorning the cabinets of modern naturalists. Sometimes exotic fowls are driven upon the Orkneys by tempestuous weather: fish, as large as whittings, have been thrown ashore to a considerable distance within the land. At Cantick-head, in the island Waes, and some other places, huge stones are often heaved up by the violence of the sea and wind, and cast over high rocks upon the land. A single Laplander has been seen more than once on this coast, in his slender canoe, covered with skins, being driven hither by adverse winds and storms. The Orkneys are

are not altogether destitute of ancient monuments and curiosities of art. In Hoy we find an entire stone, 36 feet long, 18 in breadth, and 9 in thickness, lying between two hills, and known by the name of *dwarfs stone*. It is hollowed within by the tools of a mason, the marks of which are still apparent. The entrance is a square hole about two feet high, with a stone, by way of door, standing before it. Within we find a bed with a pillow cut out of the stone; at the other end is a couch of the same kind; and in the middle a hearth, above which there is a hole or vent for the exit of the smoke. This curiosity is found in the midst of a desolate heath, and is supposed to have been the residence of a hermit: in the very neighbourhood of this stone there is a very high and steep mountain, called the *wart hill of Hoy*, near the summit of which, in the months of May, June, and July, something at noon-day is seen to shine and sparkle with remarkable lustre, supposed by the common people to be an enchanted carbuncle: many persons have clambered up the hill in quest of it, but found nothing. Perhaps this splendour is produced by the reflection of the sun on a small stream of water sliding over the face of a smooth rock. At Stennis, in the main land, there is a causeway of stones over a loch or lake, at the south end of which we observe a circle of stones rising about 20 feet above ground, each being six feet in breadth, and from one to two feet in thickness: between this circle and the causeway two stones of the same dimensions stand by themselves, and one of them is perforated in the middle. At the distance of half a mile from the other end of the causeway appears a larger circle of the same kind of stones, the diameter of which may amount to 110 paces; some of these stones are fallen; and to the east and west of the larger circle are two artificial green mounts. Both rounds are surrounded with a ditch; and one cannot view them without admiration, considering the art that must have been used to bring such unwieldy masses together in this order. They were probably temples and places of sacrifice used in times of pagan superstition; and seem to bear a great affinity with the celebrated monument called *Stonehenge*, on Salisbury Plain in England. In one of the mounts, at the north end of the causeway, the natives found nine *fibulae*, or clasps of silver, formed into a circle, and resembling a horse-shoe. In many different places of the Orkneys we find rude obelisks or single stones of a great height, set up either as memorials of battles, treaties, or the decease of remarkable personages. In Rousay, between two high mountains, there is a place which the natives distinguish by the appellation of the *camp of Jupiter Fring*: but the meaning of this name, handed down by tradition, is not known. At the west end of the main land, near Skeal, we find a surprising causeway, above a quarter of a mile in length, on the summit of high hills, composed of reddish stones of different magnitudes impressed with various figures both on the upper and under surface. Some gentlemen in the neighbourhood have carried off the most beautiful of these stones, to be set in their chimneys by way of ornament, like the painted tiles of Holland. This country produces many sepulchres of different nations. In the plains or links of Skeal, the sand being blown away

from the surface of the ground, several square catacombs appear built of stones well cemented together, containing some parcels of black earth, and each secured by a large stone at the mouth. Sepulchres of the same kind are found at Rousum in Stronsa; which is likewise remarkable for a different kind of monument, consisting of one entire stone cylinder hollowed, with a bottom like that of a barrel, and a round stone to fill up the entrance: above, the stone was sharpened into an edge; within were found some burned bones and red clay; and over it was placed a large flat stone for the preservation of the whole. These, in all probability, were Roman catacombs. In Westra divers Danish graves have been discovered: in one of these appeared the skeleton of a man, with a sword on one side and a Danish ax on the other. Some have been found buried with dogs, combs, knives, and other utensils. In many places of the country we find round hillocks or barrows, here known by the name of *brogb*, signifying, in the Teutonic language, burying-place, supposed to have been the cemeteries of the ancient Saxons. In different parts of these islands we see the remains of great buildings, believed to have been fortresses erected by the Danes or Norwegians when they possessed the country. One of these in the isle of Wyre, called the *castle of Coppi-row*, signifying a town of security, is surrounded by a fosse, and the first floor still remains above ground, a perfect square of stone wall, very thick, strongly built, and cemented with lime, the area within not exceeding ten feet in length. Of this coppirrow the common people relate many idle fables. In the chapel of Clet, in the isle of Sanda, there is a grave 19 feet long, in which was found part of a man's back bone, larger than that of a horse. Human bones, of nearly the same size, have been dug up in Westra; and indeed this country is remarkable for producing men of a gigantic stature. Within the ancient fabric of Lady Kirk in South Ronaldshaw, there is a stone four feet long and two feet broad, on which the print of two feet are engraven, supposed to be the place where, in times of popery, penitents stood to do public penance. The cathedral of Kirkwall, the capital of the Orkneys, is a fine Gothic building, dedicated to St Magnus, but now converted into a parish church. Its roof is supported by 14 pillars on each side; and its steeple, in which is a good ring of bells, by four large pillars. The three gates of the church are chequered with red and white polished stones, embossed and elegantly flowered.

Campbell, in his Political Survey, suggests two improvements in the Orkneys: 1. The erecting an university; of which he recapitulates the probable advantages, arising from their central situation: And, 2. Allowing the East India company to erect a spacious magazine in one of these islands; where also a collector, and a sufficient number of king's officers, should reside, to receive the duties of such East India commodities as might be taken off by British subjects. These he proposes for the Orkneys in particular, and in addition to improvements proposed for the whole islands in general. We are told that the Orkneys contain 30,000 inhabitants, and are equal in extent to the county of Huntingdon.

ORLE, ORLET, or *Orlo*, in architecture, a fillet under.

Orkney,
Orle.

^{Orle}
^{Orleans.} under the ovolo, or quarter round of a capital. When it is at the top or bottom of a shaft, it is called *cincture*. Palladio uses the word orlo for the plenith of the basis of the columnne.

ORLE, in heraldry. See HERALDRY, p. 454.

ORLEANOIS, a province of France, including the several districts of Orleanois-Propre, Beauce-Propre, or Chartrain, Dunois, Vendomois, Blaisois, the greatest part of Gatinois, and Perche-Gouet. The principal rivers of it are the Loire, the Loiret, the Cher, the Laconie, the Aigle, the Hyere, the Yonne, and the Eyre. There are also some remarkable canals, particularly those of Briare and Orleans. The river Loire, and the canals drawn from thence, greatly facilitate and promote the inland trade of the kingdom, and particularly of this government, which lies entirely within the jurisdiction of the parliament of Paris; and, besides the chief governor, has several subordinate ones.

Orleanois, in Latin *Aurelianensis Ager*, is bounded on the south by Sologne, on the north by Upper-Beauce, on the east by Gatinois, and on the west by Dunois and Vendomois. The Loire divides it into Upper and Lower; the former lying to the north, and the latter to the south of that river. It yields plenty of grain, wine, wood, and fruit, and abounds in cattle, game, and fish.

ORLEANS, the capital of the government of Orleanois. It was anciently called *Genabum*, or *Cenabum*; and afterwards denominated *Aurelia*, *Aureliae*, and *Aurelianum*, by the emperor Aurelian, who considerably enlarged it. In Julius Cæsar's time it was the capital of the Carnutes. It stands about 20 leagues south of Paris, on the northern bank of the Loire; across which Mr Wraxall says there is an elegant bridge of nine arches, the entrance by which is exceedingly noble and striking, the street which leads from it being composed of most elegant modern buildings. In general, however, excepting this street, it is very meanly built; the streets are narrow, and the inhabitants in general poor. It is surrounded with walls, and fortified with 40 towers. The streets almost all terminate at the quay for the convenience of trade. It is a place of considerable magnitude; and before the revolution had several inferior courts of justice, and an university of no great repute. It was also a bishop's see; and the cathedral is a most superb Gothic structure, and had the finest steeple in France till it was damaged in the time of the civil wars. There were 22 parishes in it, and a great number of churches, some of which were collegiate, and religious houses. There is also a public walk, planted with several rows of trees; and there used to be some sugar bakers; a manufacture of stockings and sheep skins; a seminary in which divinity was taught; a great trade in brandy, wine, spices, and several manufactures, which, with many other commodities, used to be conveyed to Paris by means of the Loire, and the canal which takes its name from the city. The canal begins about two miles above the city; is near 18 leagues in length; and terminates on the Loing, which falls into the Seine. The environs of Orleans, more especially in the province of Sologne, to the south of the Loire, are very agreeable. It is in general a level country, covered with corn and vines. To the north of the city is a

forest, the largest in the whole kingdom. Before the revolution it belonged to the Duke of Orleans; to whom the timber felled in it, one year with another, brought about 100,000 livres. Ever since the year 1344 this city has been a dukedom and peerage, and usually an appennage of some prince of the blood. The late duke, who has taken the name of *Egalité*, and who is still alive, seems to be one of the most detestable monsters which ever disgraced humanity. Louis XIV. gave the dukedom to his own brother Philip, who began and finished the canal; which, by the duties paid by vessels going up and down, brought in, one year with another, 150,000 livres. The bishop was suffragan to the archbishop of Paris, and had a revenue of 24,000 livres, out of which his tax to Rome was 2000 florins. A new bishop, it is said, on the first day of his entering, had the privilege of releasing all the prisoners in it, except those committed for treason. In the street leading from the bridge stands the celebrated monument where Charles VII. and Joan of Arc the Maid of Orleans, are represented on their knees before the body of our Saviour, who lies extended on the lap of the Virgin. It was erected by order of that monarch in 1458, to perpetuate his victories over the English, and their expulsion from his dominions. All the figures are in iron. The king appears bareheaded, and by him lies his helmet surmounted with a crown. Opposite to him is the Maid herself, in the same attitude of grateful devotion to Heaven. It is a most precious and invaluable historical monument.

"In the Hotel de Ville (says Wraxall) is a portrait of the same immortal woman, which I studied long and attentively. Though it was not done till 1581, which was near 130 years after her decease, it is yet the oldest and best picture of her now existing. The painter seems undoubtedly to have drawn a flattering resemblance of her, and to have given his heroine imaginary charms. Her face, though long, is of exceeding beauty, heightened by an expression of intelligence and grandeur rarely united. Her hair falls loosely down her back, and she wears on her head a sort of bonnet enriched with pearls, and shaded with white plumes, tied under her chin with a string. About her neck is a little collar, and lower down, upon her bosom, a necklace composed of small links. Her dress, which is that of a woman, I find it difficult exactly to describe. It fits close to the body, and is cut or slashed at the arms and elbows. Round her waist is an embroidered girdle, and in her right hand she holds the sword with which she expelled the enemies of her sovereign and her country. I am not surprised at the animated and enthusiastic attachment which the French still cherish for her memory. The critical and desperate emergency in which she appeared; her sex, youth, and even the obscurity of her birth; the unparalleled success which crowned her enterprize; the cruel and detestable sentence by which she was put to death; the air of the marvellous spread over the whole narration, increased and strengthened by that veneration which time affixes to every great event—all these united causes conspire to place her above mortality. Rome and Athens would undoubtedly have ranked her among their tutelary deities, and have erected temples to her honour; nor can I help being amazed, that amidst the almost infinite numbe

Orleans number of modern saints who crowd and disgrace their churches, no altar has yet been dedicated to the Maid of Orleans." See FRANCE, n° 101.

The bridge was new built this century, and opened in 1760; and the French esteem it the finest in the world. E. Long. 1. 59. N. Lat. 47. 54.

ORLEANS (Peter Joseph), a French Jesuit, whom it is proper to mention, because he wrote an *Histoire des Revolutions d'Angleterre*, was born at Bourges in 1641. He taught the belles lettres for some time in his society, but afterwards devoted himself to the writing of history. This pursuit he continued till his death, which happened in 1698. He wrote also A History of the Revolutions of Spain; A History of Two conquering Tartars, Chunchi and Camhi; The Life of Father Coton, &c. His History of the Revolutions in England, under the Family of the Stuarts, from the Year 1603 to 1690, was translated into English, and published at London, 1711, in one vol. 8vo: to which is prefixed an Introduction, by Laurence Echard, M. A. who says, that "the great varieties and wonderful changes in these reigns are here judiciously comprised in a moderate volume with no less perspicuity than strictness; and with a beautiful mixture of short characters, nice reflections, and noble sentences, which render the whole agreeable and instructive. But while the reader is entertained with so much skill and fineness, we ought to caution him with relation to the education and religion of the author: for though he has great marks of a generous candour, and a laudable deference to all superiors; yet he is to be considered, in all places, as one in favour with the French king, and not only a true papist, but a complete jesuit."

ORLOPE, in the sea language, the uppermost space or deck in a great ship, reaching from the main to the mizen mast. In three-deck ships, the second and lowest decks are sometimes called *orlopes*.

ORMOND, the northern division of the county of Tipperary, in the province of Munster in Ireland. For a long time it gave the title of *earl*, and afterwards of *marquis* and *duke*, to the noble family of Butler, descended from a sister of Thomas à Becket archbishop of Canterbury; till, at the accession of George I. the last duke was attainted of high treason, and died abroad. In that part of the country the family had great prerogatives and privileges granted by Edward III.

ORMSIDE, a town of England, near Appleby, in Westmoreland, with a church and parish, but small. A great number of vessels of brass, some of which seemed to have been gilt, were discovered near the manor-house, by the water washing away the soil. The manor-house is built castleways.

ORMSKIRK, in Lancashire, in England, is a handsome town, with a good inland trade. By the late inland navigation, it has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c. which navigation, including its windings, extends above 500 miles, in the counties of Lincoln, Nottingham, York, Lancaster, Westmoreland, Stafford, Warwick, Leicester, Oxford, Worcester, &c. There is a bituminous earth about this place, from which oil of amber is extracted, that preserves raw flesh, and serves the poor people instead of candles.

There is nothing remarkable at Ormskirk, but the monuments of some of the ancient family of the Stan-

leys before they were ennobled. Not far from it is Latham House; to which belongs a large estate, and a fine park. It is remarkable only because it was gallantly defended in the civil wars by lady Charlotte countess of Derby, who held it to the last extremity against the parliament forces, which could never oblige her to capitulate. She held out gloriously till she was relieved by Prince Rupert. It was, however, ruined in a second siege; and sold by the family to the late Sir Thomas Bootle, who built a very magnificent house upon it.

ORMUS, a small island of Asia, at the bottom of the gulph of the same name, at the entrance of the Gulph of Persia. It is about two leagues from the main land, and about six leagues in circuit. They catch excellent oysters about the island; and it yields plenty of fine white salt; also a kind of shining black sand, which is used for dusting writings, and is transported in considerable quantity to Europe. There is neither sweet water nor grass upon it, the soil being of a salt sulphureous nature. It was taken by the Portuguese in 1507, who fortified it; and it was afterwards frequented by a vast number of merchants, who were extremely rich. In 1622 the Persians, by the assistance of the English, conquered this place, and demolished the houses, which were 4000 in number, containing 40,000 inhabitants. Some time after, the Persians rebuilt the fort, and placed a garrison in it; but they could never bring it to be a place of trade as before: however, it is the key of the Persian Gulph, as well on account of the importance of the place, as the commodiousness of the harbour. It is now almost deserted, for it produces nothing but salt, which sometimes is two inches deep upon the surface of the earth. E. Long. 56. 25. N. Lat. 27. 20.

ORNICUS LAPIS, a name given by some authors to the sapphire of the ancients, which is a peculiar species of our lapis lazuli, in which the gold-coloured matter is not disposed in veins, but in separate spots, of the form of a star. It was first called *oriniscus* and *orinus*, by corruption from *aurinus*, "golden;" and thence came at length the word *ornicus*.

ORNITHIÆ, a name given by the ancients to certain winds, which usually blew in the spring, at the time when the birds of passage came over to them. Pliny says, that these winds blew from the west, and that by some the Etesian winds were called by this name. Others suppose that they blew from the north, or north-west.

ORNITHOGALLUM, STAR OF BETHLEHEM: A genus of the monogynia order, belonging to the hexandria class of plants; and in the natural method ranking under the 10th order, *Coronariæ*. The corolla is hexapetalous, erect, persisting, and patent above the middle; the filaments alterdilated at the base. There are seven species; all of them herbaceous perennials, rising from six inches to three feet high, having stalks terminated with long spikes of hexapetalous, star-shaped, white, and yellow flowers. Six of the species are very hardy, and will prosper in any situation; but one, named the *capense*, a native of the Cape of Good Hope, requires the assistance of artificial warmth to preserve it in this country. They are all easily propagated by off-sets from the roots. The bulbous roots of all the species are nutritious and wholesome.

O R N I T H O L O G Y.

ORNITHOLOGY is a science which treats of birds; describes their form, external and internal; and teaches their œconomy and their uses.

A bird is an animal covered with feathers; furnished with a bill; having two wings, and only two legs; with the faculty, except in a very few instances, of removing itself from place to place through the air.— But before proceeding to analyse the characteristic parts of birds, it will be proper to premise an explanation of the terms used by naturalists in describing them.

EXPLANATION of some Technical Terms in Ornithology used by PENNANT and LINNÆUS.

Fig.

1. *Cere. Cera*

THE naked skin that covers the base of the bill in the hawk kind.

2. *Capistrum*

A word used by Linnæus to express the short feathers on the forehead just above the bill. In crows these fall forwards over the nostrils.

3. *Lorum*

The space between the bill and the eye, generally covered with feathers; but in some birds naked, as in the black and white grebe.

4. *Orbits. Orbita*

The skin that surrounds the eye, which is generally bare; particularly in the heron and parrot.

5. *Emarginatum*

A bill is called *rostrum emarginatum* when there is a small notch near the end: this is conspicuous in that of butcher-birds and thrushes.

6. *Vibrissæ*

Vibrissæ pectinatae, stiff hairs that grow on each side the mouth, formed like a double comb, to be seen in the goatsucker, flycatcher, &c.

7. *Ballard wing*
Alula spuria

A small joint rising at the end of the middle part of the wing, or the *cubitus*; on which are three or five feathers.

8. *Lesser coverts of the wings.*

Tectrices primæ

The small feathers that lie in several rows on the bones of the wings. The under coverts are those that line the inside of the wings.

9. *Greater coverts*

Tectrices secundæ

The feathers that lie immediately over the quill-feathers and secondary feathers.

10. *Quill-feathers*
Primores

The largest feathers of the wings, or those that rise from the first bone.

11. *Secondary feathers*
Secundariæ

Those that rise from the second.

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12. *Coverts of the tail*
Uropygium

Those that cover the base of the tail.

13. *Vent-feathers*

Those that lie from the vent to the tail. *Crissum Linnæi*.

14. *The tail. Rectrices*

15. *Scapular feathers*

That rise from the shoulders, and cover the sides of the back.

16. *Nucha*

The hind part of the head.

17. *Rostrum subulatum*

A term Linnæus uses for a straight and slender bill.

18. *Pes ambulatorius*

All the toes divided to the bottom.

19. *Pes gravior*

The outer toe more or less united to the middle one, particularly conspicuous in the feet of the kingfisher.

20. *Pes scanorius*

The foot of the woodpecker formed for climbing. Climbing feet.

21. *Finned foot. Pes*
cobatus

Such as those of the grebes.

22. *Scolloped foot. Pes*
pinnatus

The webs indented in the sides, as in the coots and scolloped-toed sandpipers.

23. *Pes tridactylus vel*
cursorius

Such as want the back toe.

24. *Pes didactylus*

In which the foot is composed of two toes, observed only in the ostrich.

25. *Semipalmated. Pes*
semipalmatus

When the webs reach only half way of the toes.

26. *Ungue postico sessili*

When the hind-claw adheres to the leg without any toe, as in the petrels.

27. *Digitis 4 omnibus*
palmatis

All the four toes connected by webs, as in the corvorants.

Rostrum cultratum

When the edges of the bill are very sharp, such as in that of the crow.

28. *Unguiculatum*

A bill with a nail at the end, as in those of the geese and ducks.

29. *Lingua ciliata*

When the tongue is edged with fine bristles, as in ducks.

30. *Integra*

When plain or even.

31. *Lumbriciformis*

When the tongue is long, round, and slender like a worm, as that of the woodpecker.

Pedes compedes

When the legs are placed so far behind as to make the bird walk with difficulty, or as if in fetters; as is the case with the auks, grebes, and divers.

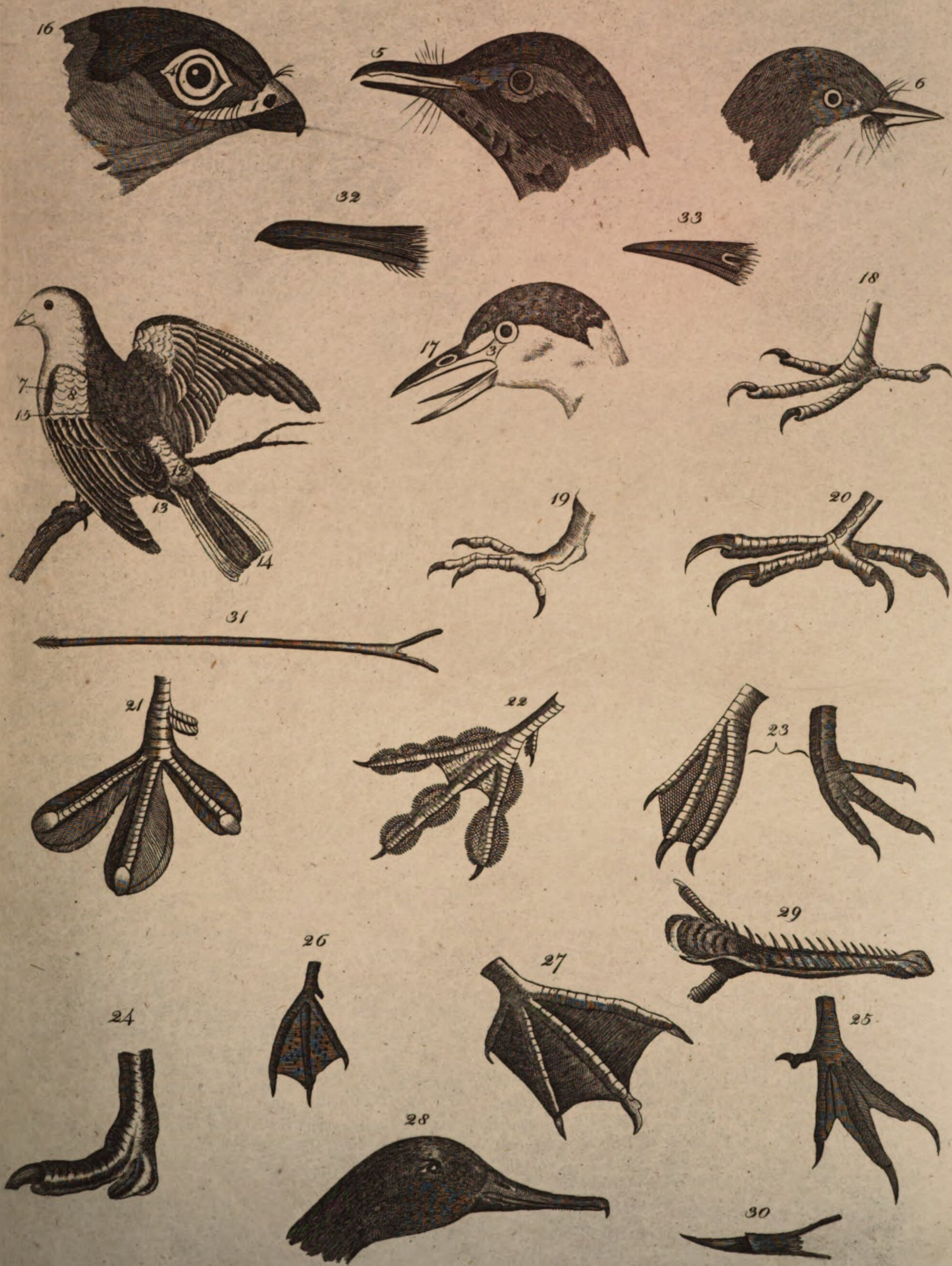
32. *Nares Lineares*

When the nostrils are very narrow, as in sea-gulls.

33. *Emarginata*

With a rim round the nostrils, as in the starc.

SECT.



SECT. I. *External parts of Birds.*

A BIRD may be divided into *head, body, and limbs.*

I. H E A D.

1. BILL (*rostrum*), is a hard horny substance, consisting of an upper and under part, extending from the head, and answering to the mandibles in quadrupeds. Its edges generally plain and sharp, like the edge of a knife, *cultrated*, as are the bills of crows; but sometimes *serrated*, as in the toucan; or *jagged*, as in the gannet and some herons; or *pedinated*, as in the duck; or *denticulated*, as in the mergansers; but always destitute of real teeth immersed in sockets.

The base in falcons is covered with a naked skin or cere (*cera*); in some birds with a caraneous appendage, as the turkey; or a callous, as the curassow.

In birds of prey, the bill is hooked at the end, and fit for tearing: in crows, straight and strong for picking: In water-fowl, either long and pointed, for striking; or slender and blunt, for searching in the mire; or flat and broad, for gobbling. Its other uses are for building nests; feeding the young; climbing, as in parrots; or, lastly, as an instrument of defence or offence.

2. NOSTRILS, (*nares*), the nice instruments of discerning their food, are placed either in the middle of the upper mandible, or near the base, or at the base, as in parrots; or behind the base, as in toucans and hornbills: but some birds, as the gannet, are destitute of nostrils. The nostrils are generally naked; but sometimes covered with bristles reflected over them, as in crows, or hid in the feathers, as in parrots, &c.

The fore-part of the head is called the *front* (*capifrum*); the summit (*vertex*), or the *croon*: the hind part, with the next joint of the neck (*nucha*), the *nape*: the space between the bill and the eyes, which in herons, grebes, &c. is naked, (*lora*), the *straps*: the space beneath the eyes (*gena*), the *cheeks*.

3. ORBITS (*orbitæ*), the eye-lids; in some birds naked, in others covered with short soft feathers.

Birds have no eye-brows; but the grouse kind have in lieu a scarlet naked skin above, which are called *supercilia*; the same word is also applied to any line of a different colour that passes from the bill over the eyes.

4. EARS. Birds are destitute of auricles or external ears, having an orifice for admission of sound; open in all but owls, whose ears are furnished with valves.

5. The CHIN, the space between the parts of the lower mandible and the neck, is generally covered with feathers; but, in the cock and some others, has caraneous appendages called *wattles* (*palearia*); in others, is naked, and furnished with a pouch, capable of great dilatation (*sacculus*), as in the pelican and corvorants.

6. NECK (*collum*), the part that connects the head to the body is longer in birds than in any other animals; and longer in such as have long legs than in those that have short, either for gathering up their meat from the ground, or striking their prey in the water, except in web-footed fowl, which are, by reversing their bodies, destined to search for food at the bottom of waters, as swans, and the like. Birds, especially those that have a long neck, have the power of retracting, bending, or

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stretching it out, in order to change their centre of gravity from their legs to their wings.

II. B O D Y.

1. Consists of the BACK (*dorsum*), which is flat, straight, and inclines; terminated by the

2. RUMP (*uropygium*), furnished with two glands, secreting a fattish liquor from an orifice each has, which the birds express with their bills to oil or anoint the discomposed parts of their feathers. These glands are particularly large in most web-footed water-fowl; but in the grebes, which want tails, they are smaller.

2. BREAST (*pectus*), is ridged and very muscular, defended by a forked bone (*clavicula*), the merry-thought.

The short winged birds, such as grouse, &c. have their breasts most fleshy or muscular; as they require greater powers in flying than the long-winged birds, such as gulls and herons, which are specifically lighter and have greater extent of sail.

4. BELLY (*abdomen*), is covered with a strong skin, and contains the entrails.

5. The VENT, or vent-feathers (*crissum*), which lies between the thighs and the tail. The anus lies hid in those feathers.

III. L I M B S.

1. WINGS, (*ala*), adapted for flight in all birds except the dodo, ostriches, cassowary, great auk, and the penguins, whose wings are too short for the use of flying; but in the dodo and ostrich, when extended, serve to accelerate their motion in running; and in the penguins perform the office of fins, in swimming or diving.

The wings have near their end an appendage covered with four or five feathers, called the *bastard wing*, (*ala notha*), and *alula spuria*.

The lesser coverts (*tearices*), are the feathers which lie on the bones of the wings.

The greater coverts are those which lie beneath the former, and cover the quill-feathers and the secondaries.

The quill feathers (*primores*), spring from the first bones (*digiti* and *metacarpi*) of the wings, and are 10 in number.

Quill-feathers are broader on their inner than exterior sides.

The secondaries (*secundariæ*), are those that rise from the second part (*cubitus*), and are about 18 in number, are equally broad on both sides. The primary and secondary wing-feathers are called *remiges*.

A tuft of feathers placed beyond the secondaries near the junction of the wings with the body. This in water-fowl is generally longer than the secondaries, cuneiform, and may not unaptly be called the *tertials*.

The scapulars are a tuft of long feathers arising near the junction of the wings (*brachia*) with the body, and lie along the sides of the back, but may be easily distinguished, and raised with one's finger.

The inner coverts are those that clothe the under side of the wing.

The subaxillary are peculiar to the greater Paradise. The wings of some birds are instruments of offence. The anhimas of Marcgrave has two strong spines in the front of each wing. A species of plover, Edw. tab. 47.

External
Parts.

and 280. has a single one in each; the whole tribe of jacana, and the gambo, or spur-winged goose of Mr Willoughby, the same.

2. The TAIL is the director, or rudder, of birds in their flight; they rise, sink, or turn by its means; for when the head points one way, the tail inclines to the other side: it is, besides, an equilibrium or counterpoise to the other parts; the use is very evident in the kite and swallows.

The tail consists of strong feathers (*rectrices*), 10 in number, as in the woodpeckers, &c.; 12 in the hawk tribe, and many others; in the gallinaceous, the mergansers, and the duck kind, of more.

It is either even at the end, as in most birds, or forked, as in swallows; or cuneated, as in magpies, &c.; or rounded, as in the purple jackdaw of Catesby. The grebe is destitute of a tail, the rump being covered with down; and that of the cassowary with the feathers of the back.

Immediately over the tail are certain feathers that spring from the lower part of the back, and are called the *coverts of the tail* (*uropygium*.)

3. THIGHS (*femora*), are covered entirely with feathers in all land-birds, except the bustards and the ostriches; the lower part of those of all waders, or cloven-footed water-fowl, are naked; that of all webbed-footed fowl the same, but in a less degree; in rapacious birds, are very muscular.

4. LEGS (*crura*); those of rapacious fowls very strong, furnished with large tendons, and fitted for tearing and a firm gripe. The legs of some of this genus are covered with feathers down to the toes, such as the golden eagle; others to the very nails; but those of most other birds are covered with scales, or with a skin divided into segments, or continuous. In some of the pies, and in all the passerine tribe, the skin is thin and membranous; in those of web-footed water-fowl, strong.

The legs of most birds are placed near the centre of gravity: in land-birds, or in waders that want the back toe, exactly so; for they want that appendage to keep them erect. Auks, grebes, divers, and pinguins, have their legs placed quite behind, so are necessitated to sit erect: their pace is awkward and difficult, walking like men in fetters: hence Linnæus styles their feet *pedes compedes*.

The legs of all cloven-footed water-fowl are long, as they must wade in search of food: of the palmated, short, except those of the flamingo, the avocet, and the courier.

5. FEET (*pedes*), in all land-birds that perch, have a large back toe: most of them have three toes forward, and one backward. Woodpeckers, parrots, and other birds that climb much, have two forward, two backward; but parrots have the power of bringing one of their hind toes forward while they are feeding themselves. Owls have also the power of turning one of their fore toes backward. All the toes of the *swift* turn forwards, which is peculiar among land-birds: the tridactylous woodpecker is also anomalous, having only two toes forward, one backward: the ostrich is another, having but two toes.

6. TOES (*digiti*). The toes of all waders are divided; but, between the exterior and middle toe, is

generally a small web, reaching as far as the first joint.

The toes of birds that swim are either plain, as in the single instance of the common water-hen or gallinule; or pinnated, as in the coots and grebes; or entirely webbed or palmated, as in all other swimmers.

All the plover tribe, or charadrii, want the back-toe. In the swimmers the same want prevails among the albatrosses and auks. No water-fowl perch, except certain herons, the corvorant, and the shag.

7. CLAWS (*ungues*). Rapacious birds have very strong, hooked, and sharp claws, vultures excepted. Those of all land-birds that roost on trees have also hooked claws, to enable them to perch in safety while asleep.

The gallinaceous tribe have broad concave claws for scraping up the ground.

Grebes have flat nails like the human.

Among water-fowl, only the skua, *Br. Zool. II. p. 529. N° 243.* and the black-toed gull, *Br. Zool. II. p. 532. N° 244.* have strong hooked or aquiline claws. All land-birds perch on trees, except the struthious and some of the gallinaceous tribes. Parrots climb; woodpeckers creep up the bodies and boughs of trees; swallows cling.

All water-fowl rest on the ground, except certain herons, and one species of ibis, the spoonbill, one or two species of ducks and of corvorants.

IV. FEATHERS.

FEATHERS are designed for two uses; as coverings from the inclemency of the weather, and instruments of motion through the air. They are placed in such a manner as to fall over one another (*tegulatum*), so as to permit the wet to run off, and to exclude the cold; and those on the body are placed in a quincuncial form; most apparent in the thick-skinned water-fowl, particularly in the divers.

1. The parts of a feather are, the shafts; corneous, strong, light, rounded, and hollow at the lower part; at the upper, convex above, concave beneath, and chiefly composed of a pith.

2. On each side the shafts are the vanes, broad on one side, narrow on the other; each vane consists of a multitude of thin laminæ, stiff, and of the nature of a split quill. These laminæ are closely braced together by the elegant contrivance of a multitude of small bristles; those on one side hooked, the other straight, which lock into each other, and keep the vanes smooth, compact, and strong.

The vanes near the bottom of the shafts are soft, unconnected, and downy.

3. Feathers are of three kinds: (1.) Such as compose instruments of flight; as the pen-feathers, or those which form the wings and tail, and have a large shaft. The vanes of the exterior side bending downward, of the interior upward, lying close on each other, so that when spread not a feather misses its impulse on the air. The component parts of these feathers are described before.

(2.) The feathers that cover the body, which may be properly called the *plumage*, have little shaft, and much vane; and never are exerted or relaxed unless in anger, fright, or illness.

(3.)

Flight.

(3.) The Down (*plumæ*), which is dispersed over the whole body amidst the plumage, is short, soft, unconnected, consists of lanuginous vanes, and is intended for excluding that air or water which may penetrate or escape through the former. This is particularly apparent in aquatic birds, and remarkably so in the anserine tribe. There are exceptions to the forms of feathers. The vanes of the subaxillary feathers of the Paradise are unconnected, and the laminæ distant, looking like herring-bone. Those of the tail of the ostrich, and head of a species of curassow, curled. Those of the cassowary consist of two shafts, arising from a common stem at the bottom: as do at the approach of winter (after moulting) those of the ptarmigans of arctic countries. The feathers of the penguins, particularly those of the wings, consist chiefly of thin flat shafts, and more resemble scales than feathers; those of the tail, like split whale-bone.

SECT. II. *Flight of Birds.*

THE flight of birds is various; for, had all the same, none could elude that of rapacious birds. Those which are much on wing, or flit from place to place, often owe their preservation to that cause: those in the water, to diving.

Kites, and many of the falcon tribe, glide smoothly through the air, with scarce any apparent motion of the wings.

Most of the order of pies fly quick, with a frequent repetition of the motion of the wings. The Paradise floats on the air. Woodpeckers fly awkwardly, and by jerks, and have a propensity to sink in their progress.

The gallinaceous tribe, in general, fly very strong and swiftly; but their course is seldom long, by reason of the weight of their bodies.

The columbine race is of singular swiftness; witness the flight of the carrier-pigeon. See *CARRIER-PIGEON*.

The passerine fly with a quick repetition of strokes; their flight, except in migration, is seldom distant.

Among them, the swallow tribe is remarkably agile, their evolutions sudden, and their continuance on wing long.

Nature hath denied flight to the struthious; but still, in running, their short wings are of use, when erect, to collect the wind, and like sails to accelerate their motion.

Many of the greater cloven-footed water-fowl, or waders, have a slow and flagging flight; but most of the lesser fly swiftly, and most of them with extended legs, to compensate the shortness of their tails. Rails and gallinules fly with their legs hanging down.

Coots and grebes with difficulty are forced from the water; but when they rise, fly swiftly. Grebes and also divers fly with their hind parts downwards, by reason of the forwardness of their wings.

Web-footed fowl are various in their flight. Several have a sailing or flagging wing, such as gulls. Pinguins, and a single auk, are denied the power of flight. Wild geese, in their migrations, do not fly pell-mell, but in a regular figure, in order to cut the air with greater ease; for example, in long lines, in the figure of a $\triangleright$, or some pointed form or letter, as the ancients

report that the cranes assumed in their annual migrations, till their order was broken by storms.

Nuptials.

*Strymona sic gelidum, bruma pellente, relinquunt,
Potura te, Nile, GRUES, primoque volatu
Effingunt varias, casu monstrante, figuras.
Mox ubi percussit tensas NOTUS altior alas,
Confusos temere immixta glomerantur in orbes,
Et turbata perit dispersis litera* pennis.*

* TAA.

Lucan. lib. v. l. 711.

From observation it appears, that the flight of birds is much assisted by their being endowed with the peculiar faculty of enlarging their bulk at will; and from this circumstance the animal is enabled to buoy itself up the easier in the air, its specific gravity being lessened in proportion as the bulk is increased.

This arises from certain air vessels communicating with the lungs, and dispersed over various parts of the body, even to the bones; whereby the bird, by filling or emptying these vessels, has the power of contracting or dilating itself according to the occasion it may have for the change. See *COMPARATIVE Anatomy*, n° 121—123.

SECT. III. *Of the Nuptials, Nidification, and Eggs of Birds.*

1. Most birds are monogamous, or pair; in spring fixing on a mate, and keeping constant till the cares of incubation and educating the young brood is past. This is the case, as far as we know, with all the birds of the first, second, fourth, and fifth orders.

Birds that lose their mates early, associate with others; and birds that lose their first eggs will pair and lay again. The male, as well as the female, of several, join alternately in the trouble of incubation, and always in that of nutrition; when the young are hatched, both are busied in looking out for and bringing food to the nestlings; and, at that period, the mates of the melodious tribes, who, before, were perched on some sprig, and by their warbling alleviated the care of the females confined to the nest, now join in the common duty.

Of the gallinaceous tribe, the greatest part are polygamous, at least in a tame state; the pheasant, many of the grouse, the partridges, and bustards, are monogamous; of the grouse, the cock of the wood, and the black game, assemble the females during the season of love, by their cries,

Et venerem incertam rapiunt.

The males of polygamous birds neglect their young; and, in some cases, would destroy them, if they met with them. The œconomy of the struthious order, in this respect, is obscure. It is probable that the birds which compose it are polygamous, like the common poultry, for they lay many eggs; the dodo, however, is said to lay but one.

All waders or cloven-footed fowl are monogamous; and all with pinnated feet are also monogamous, except the ruffs.

The swimmers or web-footed fowl observe the same order, as far as can be remarked with any certainty; but many of the auks assemble in the rocks in such numbers, and each individual so contiguous, that it is

not possible to determine their method in this article.

It may be remarked, that the affection of birds to their young is very violent during the whole time of nutrition, or as long as they continue in a helpless state; but as soon as the brood can fly and shift for itself, the parents neglect, and even drive it from their haunts, the affection ceasing with the necessity of it: but, during that period,

The mothers nurse it, and the fires defend.

The young dismiss'd, to wander earth, or air,

There stops the instinct, and there ends the care:

The link dissolves; each seeks a fresh embrace;

Another love succeeds, another race.

2. The Nest of a bird is one of those daily miracles that, from its familiarity, is passed over without regard. We stare with wonder at things that rarely happen, and neglect the daily operations of nature that ought first to excite our admiration and claim our attention.

Each bird, after nuptials, prepares a place suited to its-species, for the depositing its eggs and sheltering its little brood: different genera, and different species, set about the task in a manner suitable to their several natures; yet, every individual of the same species collects the very same materials, puts them together in the same form, and chooses the same sort of situation for placing this temporary habitation. The young bird of the last year, which never saw the building of a nest, directed by a heaven-taught sagacity, pursues the same plan in the structure of it, and selects the same materials as its parent did before. Birds of the same species, of different and remote countries, do the same. The swallows of Britain, and of the remoter parts of Germany, observe the same order of architecture; and in many instances have been known to return to the same places in which they had reared their young the year before.

The nests of the larger rapacious birds are rude, made of sticks and bents, but often lined with something soft; they generally build in high rocks, ruined towers, and in desolate places: enemies to the whole feathered creation, they seem conscious of attacks, and seek solitude. A few build upon the ground.

Shrikes, allied to the rapacious birds, build their nests in bushes, with moss, wool, &c.

The order of pies is very irregular in the structure of their nests. Parrots, and in fact all birds with two toes forward and two backward, lay their eggs in the hollows of trees. And most of this order creep along the bodies of trees, and lodge their eggs also within them.

Crows build in trees: among them, the nest of the magpie, composed of rude materials, is made with much art, quite covered with thorns, and only a hole left for admittance.

The nests of the orioles are contrived with wonderful sagacity, and are hung at the end of some bough, or between the forks of extreme branches. In Europe, only three birds have pensile nests; the common oriole, the parus pendulinus or hang-nest titmouse, and one more. But in the torrid zone, where the birds fear the search of the gliding serpent and inquisitive monkey, the instances are very frequent; a mar-

vellous instinct implanted in them for the preservation of their young. See ORIOLUS.

All of the gallinaceous and struthious orders lay their eggs on the ground. The ostrich is the only exception, among birds, of the want of natural affection: "Which leaveth her eggs in the earth, and warmeth them in the dust, and forgetteth that the foot may crush them, or the wild beast may break them."

The columbine race makes a most artless nest, a few sticks laid across may suffice.

Most of the passerine order build their nests in shrubs or bushes, and some in holes of walls or banks. Several in the torrid zone are pensile from the boughs of high trees; that of the taylor-bird, a wondrous instance*. Some of this order, such as larks, and the *See *Motacilla*, n° 5. goatfucker, on the ground. Some swallows make a curious plaster-nest beneath the roofs of houses; and an Indian species, nests of a certain glutinous matter, which are collected as delicate ingredients for soups of Chinese epicures. See the article *BIRDS Nests*.

Most of the cloven-footed water-fowl, or waders, lay upon the ground. Spoonbills and the common heron build in trees, and make up large nests with sticks, &c. Storks build on churches, or the tops of houses.

Coots make a great nest near the water side.

Grebes, in the water, a floating nest, perhaps adhering to some neighbouring reeds.

Web-footed fowl breed on the ground, as the avoet, terns, some of the gulls, mergansers, and ducks: the last pull the down from their breasts, to make a softer and warmer bed for their young. Auks and guillemots lay their eggs on the naked shelves of high rocks; penguins, in holes under ground: among the pelicans, that which gives name to the genus, makes its nest in the desert, on the ground. Shags, sometimes on trees; corvorants and gannets, on high rocks, with sticks, dried algæ, and other coarse materials.

3. Rapacious birds, in general, lay few eggs; eagles and the larger kinds, fewer than the lesser. The eggs of falcons and owls are rounder than those of most other birds; they lay more than six.

The order of pies vary greatly in the number of their eggs.

Parrots lay only two or three white eggs.

Crows lay six eggs, greenish, mottled with dusky.

Cuckoos, as far as we can learn, two.

Woodpeckers, wryneck, and kingsfisher, lay eggs of a clear white and semi-transparent colour. The woodpeckers lay six, the others more.

The nuthatch lays often in the year, eight at a time, white, spotted with brown.

The hoopoe lays but too cinerous eggs.

The creeper lays a great number of eggs.

The honeyfucker, the least and most defenceless of birds, lays but two: but Providence wisely prevents the extinction of the genus, by a swiftness of flight that eludes every pursuit.

The gallinaceous order, the most useful of any to mankind, lay the most eggs, from 8 to 20. *Benigna circa hoc natura, innocua et esculenta animalia fecunda generavit*, is a fine observation of Pliny. With exception to the bustard, a bird that hangs between the

Eggs.

the gallinaceous and the waders, which lays only two.

The columbine order lays but two white eggs; but the domestic kind, breeding almost every month, supports the remark of the Roman naturalist.

All of the passerine order lay from four to six eggs; except the titmouse and the wren, which lay 15 or 18, and the goatsucker, which lays only two.

The struthious order disagrees much in the number of eggs: the ostrich laying many, as far as 50; the dodo but one.

The cloven-footed water-fowl, or waders, lay, in general, four eggs: The crane and the Norfolk plover seldom more than two. All those of the snipe and plover genus are of a dirty white, or olive spotted with black, and scarce to be distinguished in the holes they lay in. The bird called the Land Rail (an ambiguous species), lays from 15 to 20. Of birds with pinnated feet, the coot lays seven or eight eggs, and sometimes more. Grebes, from four to eight, and those white.

The web-footed, or swimmers, differ in the number of their eggs. Those which border on the order of waders, lay few eggs; the avocet two; the flamingo three; the albatross, the auks, and guillemots, lay only one egg a-piece: the eggs of the two last are of a size strangely large in proportion to the bulk of the birds. They are commonly of a pale green colour, spotted, and striped so variously, that not two are alike; which gives every individual the means of distinguishing its own on the naked rock where such multitudes assemble.

Divers only two.

Terns and gulls lay about three eggs, of a dirty olive, spotted with black.

Ducks lay from eight to twenty eggs; the eggs of all the genus are of a pale green, or white, and unspotted.

Penguins probably lay but one egg.

Of the pelican genus, the gannet lays but one egg; the shags or corvorants, six or seven, all white; the last, the most oblong of eggs.

A minute account of the eggs of birds might occupy a treatise of itself. This is only meant to show the great conformity nature observes in the shape and colours of the eggs of congenerous birds; and also, that she keeps the same uniformity of colour in the eggs as in the plumage of the birds they belong to.

Zinanni published, at Venice, in 1737, A Treatise on Eggs, illustrated with accurate figures of 106 eggs. Mr Reyger of Dantzick published, in 1766, a posthumous work by Klein, with 21 plates, elegantly coloured: but much remains for future writers.

SECT. IV. System.

CONSIDERING the many systems that have been offered to the public of late years, Mr Pennant gives the preference to that composed by Mr Ray in 1667, and afterwards published in 1678; but observes, at the same time, that it would be unfair to conceal the writer, from whom our great countryman took the original hint of forming that system which has proved

the foundation of all that has been composed since that period.

He was a Frenchman, Belon of Mans, who first attempted to range birds according to their natures; and performed great matters, considering the unenlightened age he lived in; for his book was published in 1555. His arrangement of rapacious birds is as judicious as that of the latest writers. For his second chapter treats of vultures, falcons, shrikes, and owls: in the two next, he passes over to the web-footed water-fowl, and to the cloven-footed: in the fifth, he includes the gallinaceous and struthious; but mixes with them the plovers, buntings, and larks; in the sixth are the pies, pigeons, and thrushes; and the seventh takes in the rest of the passerine order.

Notwithstanding the great defects that every naturalist will at once see in the arrangement of the lesser birds of this writer, yet he will observe a rectitude of intention in general, and a fine notion of system, which was left to the following age to mature and bring to perfection. Accordingly Mr Ray, and his illustrious pupil the honourable Francis Willoughby, assumed the plan; but with great judgment flung into their proper stations and proper genera those which Belon had confusedly mixed together. They formed the great division of terrestrial and aquatic birds; they made every species occupy their proper place, consulting at once exterior form and natural habit. They could not bear the affected intervention of aquatic birds in the midst of terrestrial birds. They placed the last by themselves; clear and distinct from those whose haunts and œconomy were so different.

The subjoined scheme of arrangement by Mr Pennant, is introduced with the following observations.

"Mr Ray's general plan is so judicious, that to me it seems scarce possible to make any change in it for the better: yet, notwithstanding he was in a manner the founder of systematic zoology, later discoveries have made a few improvements on his labours. My candid friend Linnæus did not take it amiss, that I, in part, neglect his example: for I permit the land-fowl to follow one another, undivided by the water-fowl, the grallæ, and anseres of his system†; but, in my generical arrangement, I most punctually attend to the order he has given in his several divisions, except in those of his anseres, and a few of his grallæ. For, after the manner of Mr Brisson, I make a distinct order of water fowl with pinnated feet, placing them between the waders or cloven-footed water-fowl and the web-footed. The ostrich, and land-birds with wings useless for flight, I place as a distinct order. The trumpeter (*psophia Linnæi*), and the bustards, I place at the end of the gallinaceous tribe. All are land-birds. The first multiparous, like the generality of the gallinaceous tribe; the last granivorous, swift runners, avoiders of wet-places; and both have bills somewhat arched. It must be confessed, that both have legs naked above the knees; and the last, like the waders, lay but few eggs. They seem ambiguous birds that have affinity with each order; and it is hoped that each naturalist may be indulged the toleration of placing them as suits his own opinion."

System.

Pennant's
Genera of
Birds.

† See Zoo-

logy.

TABLE

Arrange-
ment-

TABLE of Pennant's ARRANGEMENT, with the corresponding ORDERS and GENERA in the SYSTEMA NATURÆ of Linnaeus.

DIVISION I. LAND-BIRDS. Div. II. WATER-FOWL.

Divis. I.	Order I. Rapacious.	<i>Accipitres</i> LINNÆI.
	II. Pies.	<i>Pica.</i>
	III. Gallinaceous.	<i>Gallinæ.</i>
	IV. Columbine.	<i>Passeres.</i>
	V. Passerine.	<i>Passeres.</i>
	VI. Struthious.	<i>Gallinæ.</i> <i>Grallæ.</i>
Divis. II.	Order VII. Cloven-footed or Waders.	<i>Grallæ.</i>
	VIII. Pinnated feet.	<i>Anseres.</i> <i>Grallæ.</i>
	IX. Web-footed.	<i>Anseres.</i> <i>Grallæ.</i>

DIV. I.

ORD. I. RAPACIOUS.

1 Vulture	<i>Vultur</i>	3 Owl	<i>Strix</i>
2 Falcon	<i>Falco</i>		

ORD. II. PIES.

4 Shrike	<i>Lanius</i>	17 Curucui	<i>Trogon</i>
5 Parrot	<i>Pittacus</i>	18 Barbet	<i>Bucco</i>
6 Toucan	<i>Ramphastos</i>	19 Cuckoo	<i>Cuculus</i>
7 Motmot	<i>Ramphastos</i>	20 Wryneck	<i>Juncu</i>
8 Hornbill	<i>Buceros</i>	21 Woodpecker	<i>Picus</i>
9 Bee-eater	<i>Buphaga</i>	22 Jacamar	<i>Alcedo</i>
10 Ani	<i>Crotophaga</i>	23 Kingfisher	<i>Alcedo</i>
11 Wattle		24 Nuthatch	<i>Sitta</i>
12 Crow	<i>Corvus</i>	25 Tody	<i>Todus</i>
13 Roller	<i>Coracias</i>	26 Bee-eater	<i>Merops</i>
14 Oriole	<i>Oriolus</i>	27 Hoopoe	<i>Upupa</i>
15 Grackle	<i>Gracula</i>	28 Creeper	<i>Certhia</i>
16 Paradise	<i>Paradisæa</i>	29 Honeycreeper	<i>Trochilus</i>

ORD. III. GALLINACEOUS.

30 Cock	<i>Phasianus</i>	35 Pheasant	<i>Phasianus</i>
31 Turkey	<i>Meleagris</i>	36 Grouse	<i>Tetrao</i>
32 Pintado	<i>Numida</i>	37 Partridge	<i>Tetrao</i>
33 Curassow	<i>Crax</i>	38 Trumpeter	<i>Pfophia</i>
34 Peacock	<i>Pavo</i>	39 Bustard	<i>Otis</i>

ORD. IV. COLUMBINE.

40 Pigeon	<i>Columba</i>
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ORD. V. PASSERINE.

41 Stare	<i>Sturnus</i>	49 Flycatcher	<i>Muscicapa</i>
42 Thrush	<i>Turdus</i>	50 Lark	<i>Alauda</i>
43 Chatterer	<i>Ampelis</i>	51 Wagtail	<i>Motacilla</i>
44 Coby	<i>Loxia</i>	52 Warblers	<i>Motacilla</i>
45 Grosbeak	<i>Loxia</i>	53 Manakin	<i>Pipra</i>
46 Bunting	<i>Emberiza</i>	54 Titmouse	<i>Parus</i>
47 Tanager	<i>Tanagra</i>	55 Swallow	<i>Hirundo</i>
48 Finch	<i>Fringilla</i>	56 Goatsucker	<i>Caprimulgus</i>

ORD. VI. STRUTHIOUS.

57 Dodo	<i>Didus</i>	58 Ostrich	<i>Struthio</i>
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DIV. II.

ORD. VII. CLOVEN-FOOTED, or WADERS.

59 Spoonbill	<i>Platalea</i>	64 Umbrell	<i>Scopus</i> BRISS.
60 Screamer	<i>Palamedea</i>	65 Ibis	<i>Tantalus</i>
61 Jabiru	<i>Myiastora</i>	66 Curlew	<i>Scolopax</i>
62 Boatbill	<i>Cancroina</i>	67 Snipe	<i>Scolopax</i>
63 Heron	<i>Ardea</i>	68 Sandpiper	<i>Tringa</i>

69 Plover	<i>Charadrius</i>
70 Oystercatcher	<i>Hamatopus</i>
71 Jacana	<i>Parra</i>
72 Pratincole	<i>Hirundo</i>

73 Rail	<i>Rallus</i>
74 Sheathbill	
75 Gallinule	<i>Fulica</i>

Arrange-
ment.

ORD. VIII. PINNATED-FEET.

76 Phalarope	<i>Tringa</i>	78 Grebe	<i>Colymbus</i>
77 Coot	<i>Fulica</i>		

ORD. IX. WEB-FOOTED.

79 Avocetta	<i>Recurvirostra</i>	88 Gull	<i>Larus</i>
80 Courier	<i>Currua</i> BRISS	89 Petrel	<i>Procellaria</i>
81 Flammant	<i>Phœnicopterus</i>	90 Merganser	<i>Mergus</i>
82 Albatross	<i>Diomedea</i>	91 Duck	<i>Anas</i>
83 Auk	<i>Alca</i>	92 Pinguin	<i>Diomedea</i>
84 Guillemot	<i>Colymbus</i>		<i>Phaeton</i>
85 Diver	<i>Colymbus</i>	93 Pelican	<i>Pelicanus</i>
86 Skimmer	<i>Rhynchops</i>	94 Tropic	<i>Phaeton</i>
87 Tern	<i>Sterna</i>	95 Darter	<i>Plutus</i>

To the above, we have thought it necessary to subjoin an extract of the orders and genera as they stand in the *Index Ornithologicus* and General Synopsis of birds as published by Mr Latham; as from the copious manner in which he has treated the subject, and from a very great addition he has been enabled to make to this branch of natural history, some deviations from the plan of preceding authors, as well as the formation of some new genera, have necessarily arisen.

TABLE of the ORDERS and GENERA of BIRDS, according to Mr LATHAM.

Ind. Orn.	Syn. of Birds.
AVIUM ORDINES.	ORDERS OF BIRDS.
Div. I.	Div. I.
I. Accipitres.	Rapacious
II. Picae.	Pies
III. Passeres.	Passerine
IV. Columbæ.	Columbine
V. Gallinæ.	Gallinaceous
VI. Struthiones.	Struthious
Div. II.	Div. II.
VII. Grallæ.	Waders
VIII. Pinnatipedes.	Pinnated feet
IX. Palmipedes.	Web-footed

AVIUM GENERA.	GENERA OF BIRDS.
Div. I.	Div. I.
AVES TERRESTRES	LAND BIRDS.
ORDO I.	ORDER I.
ACCIPITRES.	RAPACIOUS.

1 Vultur	<i>Vulture</i>
2 Falco	<i>Falcon</i>
3 Strix	<i>Owl</i>

ORDO II.
PICÆ.

4 Lanius	<i>Shrike</i>
5 Pittacus	<i>Parrot</i>
6 Ramphastos	<i>Toucan</i>
7 Momotus	<i>Motmot</i>

ORDER II.
PIES.

8 Scythrops	
9 Buceros	<i>Hornbill</i>
10 Buphaga	<i>Bee-eater</i>
11 Crotophaga	<i>Ani</i>
12 Callæas	<i>Wattle-Bird</i>
13 Corvus	<i>Crow</i>
14 Coracias	<i>Roller</i>

15 Oriolus

Arrangement.

Ind. Orn.

Syn. of Birds.

Ind. Orn.

Syn. of Birds.

Arrangement.

- 15 Oriolus
16 Gracula
17 Paradisæa
18 Trogon
19 Bucco
20 Cuculus
21 Yunx
22 Picus
23 Galbula
24 Alcedo
25 Sitta
26 Todus
27 Merops
28 Upupa
29 Certhia
30 Trochilus

ORDO III.

PASSERES.

- 31 Sturnus
32 Turdus
33 Ampelis
34 Colius
35 Loxia
36 Emberiza
37 Tanagra
38 Fringilla
39 Phytotoma
40 Muscicapa
41 Alauda
42 Motacilla
43 Sylvia
44 Pipra
45 Parus
46 Hirundo
47 Caprimulgus

ORDO IV.

COLUMBÆ.

- 48 Columba

ORDO V.

GALLINÆ.

- 49 Pavo
50 Meleagris
51 Penelope
52 Numida
53 Crax
54 Phasianus
55 Tinamus
56 Tetrao
57 Perdix
58 Psophia
59 Otis

ORDO VI.

STRUTHIONES.

- 60 Didus
61 Struthio
62 Casuarius
63 Rhea

- Oriole
Grackle
Paradise Bird
Curucui
Barbet
Cuckoo
Wryneck
Woodpecker
Jacamar
Kingsfisher
Nuthatch
Tody
Bee-eater
Hoopoe
Creeper
Humming Bird.

ORDER III.

PASSERINE.

- Starling
Thrush
Chatterer
Coly
Großbeak
Bunting
Tanager
Finch

Flycatcher
Lark
Wagtail
Warbler
Manakin
Titmouse
Swallow
Goatsucker

ORDER IV.

COLUMBINE.

- Pigeon

ORDER V.

GALLINACEOUS.

- Peacock
Turkey

Pintado
Curassow
Pheasant
Tinamon
Grouse
Partridge
Trumpeter
Bustard

ORDER VI.

STRUTHIOUS.

- Dodo
African Ostrich
Cassowary
American Ostrich.

DIV. II.
AVES AQUATICÆ.

ORDO VII.

GRALLÆ.

- 64 Platalea
65 Palamedea
66 Mycteria
67 Cancroma
68 Scapus
69 Ardea
70 Tantalus
71 Numenius
72 Scolopax
73 Tringa
74 Charadrius
75 Curforius
76 Hæmatopus
77 Glareola
78 Rallus
79 Parra
80 Gallinula
81 Vaginalis

ORDO VIII.

PINNATIPEDES.

- 82 Phalaropus
83 Fulica
84 Podiceps

ORDO IX.

PALMIPEDES.

- * Pedibus longioribus
85 Recurvirostra
86 Corrija
87 Phœnicopterus
†† Pedibus brevioribus
88 Diomedea
89 Alca
90 Uria
91 Colymbus
92 Rhynchops
93 Sterna
94 Larus
95 Procellaria
96 Mergus
97 Anas
98 Aptenodytes
99 Pelicanus
100 Phaeton
101 Plotus

In the latter arrangements of birds, although it cannot be said that the authors have lost sight of their great predecessor Linnæus, yet the necessity of deviating from him must seem obvious, when the very great number of species which have come to our knowledge of late years, sufficient to justify such alteration, and satisfy the most scrupulous advocates of this great man, is considered. In his last edition of the *Systema Naturæ*, Linnæus enumerates about 930 birds only; but

DIV. II.
WATER BIRDS.

ORDER VII.

WADERS.

- Spoonbill
Screamer
Jabiru
Boatbill
Umbre
Heron
Ibis
Curlew
Snipe
Sandpiper
Plover

Oyster-catcher
Pratincole
Rail
Jacana
Gallinule
Sheath-bill

ORDER VIII.

With PINNATED-
FEET.

- Phalarope
Coot
Grebe

ORDER IX.

WEB-FOOTED.

- * With long legs
Avoset
Courier
Flamingo
†† With short legs.
Albatross
Auk
Guillemot
Diver
Skimmer
Tern
Gull
Petrel
Merganser
Duck
Penguin
Pelican
Tropic Bird
Darter

Arrange-
ment.

in the Index and Synopsis of Mr Latham, they have been increased to very near 4000, a number never imagined by former writers on the subject to exist in nature.

M. Biberg, in his excellent treatise *Oeconomia Naturæ amen. acad.* vol. 2. calculates the probability of the vegetable kingdom furnishing as far as 10,000 species; that of the vermes 2000; insects 10,000; amphibia 300; fishes 2000; birds 2000; quadrupeds 200.

How far we have already exceeded this number in every department the naturalist can testify; but how much farther the list may be increased, no one will pretend to foretel, whilst the ardour and indefatigable industry of the present race of naturalists, added to the taste for possessing new acquisitions, and exploring new countries, shall continue.

For *Linnaeus's Arrangement*. See ZOOLOGY.

Arrange-
ment.

O R O

Ornitho-
mancy
||
Orobio.

ORNITHOMANCY, a species of divination performed by means of birds; being the same with augury. See DIVINATION and AUGURY.

ORNITHOPUS, in botany: A genus of the decandria order, belonging to the diadelphia class of plants; and in the natural method ranking under the 32d order, *Papilionaceæ*. The legumen is articulated, cylindrical, and bent in the form of a bow.

ORNUS FRAXINUS, is that species of the ash tree, in the Linnæan system, which, according to Dr Cirillo of Naples, produces the manna. It is the ash tree, whose smaller leaves are sawed, with flowers having petals. In order to obtain the manna, those whose business it is, in July and August, make an oblong incision, and take off from the bark of the tree about three inches in length and two in breadth: they leave the wound open, and by degrees the manna runs out, and is almost suddenly thickened to its proper consistence, and is found adhering to the bark of the tree. This is collected in baskets, and called *manna grassa*. When they want fine manna, they apply to the incision of the bark thin straw, or small bits of shrubs; so that the manna in coming out runs upon these bodies, and is collected in a sort of regular tubes, which give it the name of *manna in cannoli*.

OROBANCHE, in botany: A genus of the angiospermia order, belonging to the didynamia class of plants; and in the natural method ranking under the 40th order, *Personatæ*. The calyx is bifid; the corolla ringent; the capsule unilocular, bivalved, and polyspermous; there is a glandule under the base of the germen.

OROBIO (Don Balthasar), a celebrated Jew of Spain. He was carefully educated in Judaism by his parents, who were Jews, though they outwardly professed themselves Roman Catholics; abstaining from the practice of their religion in every thing, except only the observation of the fast of expiation, in the month Tifis or September. Orobio studied the scholastic philosophy usual in Spain, and became so skilled in it, that he was made professor of metaphysics in the university of Salamanca. Afterwards, however, applying himself to the study of physic, he practised that art at Seville with success, till, accused of Judaism, he was thrown into the inquisition, and suffered the most dreadful cruelties, in order to force a confession. He himself tells us, that he was put into a dark dungeon, so strait that he could scarce turn himself in it; and suffered so many hardships, that his brain began to be disturbed. He talked to himself often in this way: "Am I indeed that Don Balthasar Orobio who walked freely about in Seville, who was entirely at ease,

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O R O

Orobio.

and had the blessings of a wife and children?" Sometimes, supposing that his past life was but a dream, and that the dungeon where he then lay was his true birth-place, and which to all appearance would also prove the place of his death. At other times, as he had a very metaphysical head, he first formed arguments of that kind, and then resolved them; performing thus the three different parts of opponent, respondent, and moderator, at the same time. In this whimsical way he amused himself from time to time, and constantly denied that he was a Jew. After having appeared twice or thrice before the inquisitors, he was used as follows: At the bottom of a subterraneous vault, lighted by two or three small torches, he appeared before two persons, one of whom was judge of the inquisition, and the other secretary; who, asking him whether he would confess the truth? protested, that in case of a criminal's denial, the holy office would not be deemed the cause of his death if he should expire under the torments, but that it must be imputed entirely to his own obstinacy. Then the executioner stripped off his clothes, tied his feet and hands with a strong cord, and set him upon a little stool, while he passed the cord through some iron buckles which were fixed in the wall; then drawing away the stool, he remained hanging by the cord, which the executioner still drew harder and harder, to make him confess, till a surgeon assured the court of examiners, that he could not possibly bear more without expiring. These cords put him to exquisite tortures, by cutting into the flesh, and making the blood burst from under his nails. As there was certainly danger that the cords would tear off his flesh, to prevent the worst, care was taken to gird him with some bands about the breast, which however were drawn so very tight, that he would have run the risk of not being able to breathe, if he had not held his breath in while the executioner put the bands round him; by which device his lungs had room enough to perform their functions. In the severest extremity of his sufferings, he was told that this was but the beginning of his torments, and that he would better confess before they proceeded to extremities. Orobio added further, that the executioner, being on a small ladder, in order to frighten him, frequently let it fall against the shin-bones of his legs; so that the staves being sharp, created exquisite pain. At last, after three years confinement, finding themselves baffled by his perseverance in denying his religion, they ordered his wounds to be cured, and discharged him. As soon as he had got liberty, he resolved to quit the Spanish dominions; and, going to France, was made professor of physic at Thoulouse.

Orabus,
Orodes.

Thoulouse. The theses which he made as candidate for this place were upon putrefaction; and he maintained them with so much metaphysical subtlety, as embarrassed all his competitors. He continued in this city for some time, still outwardly professing popery: but at last, weary of dissembling, he repaired to Amsterdam, where he was circumcised, took the name of Isaac, and professed Judaism; still continuing, however, to practise physic, in which he was much esteemed. Upon the publication of Spinoza's book, he despised a system the falseness of which he quickly discovered; and when Bredenbourg's answer to it came to his hands, Orobio, being persuaded that the writer, in refuting Spinoza, had also admitted some principles which tended to Atheism, took up his pen against them both, and published a piece to that purpose, intituled, *Certamen philosophicum adversus J. B. Principia*. But the dispute which he held with the celebrated Philip Limborch against the Christian religion made the greatest noise. Here he exerted the utmost force of his metaphysical genius, and carried himself with great temper. The three papers which he wrote on the occasion were afterwards printed by his antagonist, in an account which he published of the controversy, under the title of *Amica Collatio cum Judeo*. Orobio died in 1687.

OROBUS, BITTER VETCH: A genus of the decandria order, belonging to the diadelphia class of plants; and in the natural method ranking under the 32d order, *Papilionacea*. The style is linear; the calyx obtuse at the base, with the upper segments deeper and shorter than the rest. There are nine species. All of them have fibrated roots, which are perennial, but are annual in stalk, rising early in spring and decaying in autumn. They are very hardy plants, and prosper in any common soil of a garden. Most of the sorts are very floriferous, and the flowers conspicuous and ornamental for adorning the flower compartments. The flowers are universally of the papilionaceous or butterfly kind, consisting each of four irregular petals, *i. e.* a standard, two wings, and a keel; and are all succeeded by long taper seed-pods, furnishing plenty of ripe seed in autumn; by which the plants may be propagated abundantly, as also by parting the roots.

The Scots Highlanders have a great esteem for the tubercles of the roots of the tuberosus, or species sometimes called *wood-pea*. They dry and chew them in general to give a better relish to their liquor; they also affirm that they are good against most disorders of the breast, and that by the use of them they are enabled to resist hunger and thirst for a long time. In Breadalbane and Rossshire, they sometimes bruise and steep them in water, and make an agreeable fermented liquor with them. They have a sweet taste, something like the roots of liquorice; and, when boiled, we are told, they are nutritious and well flavoured; and in times of scarcity they have served as a substitute for bread.

ORODES, a prince of Parthia, who murdered his brother Mithridates, and ascended his throne. He defeated Crassus the Roman triumvir, and poured melted gold down the throat of his fallen enemy, to reproach him for his avarice and ambition. He followed the interest of Cassius and Brutus at Philippi. It is said, that when Orodes became old and infirm, his 30 children applied to him, and disputed in his

presence their right to the succession. Phraates, the eldest of them, obtained the crown from his father; and, to hasten him out of the world, he attempted to poison him. The poison had no effect; and Phraates, still determined on his father's death, strangled him with his own hands, about 35 years before the Christian era. Orodes had then reigned about 50 years.

ORONTIUM, in botany: A genus of the monogynia order, belonging to the hexandria class of plants; and in the natural method ranking under the second order, *Piperita*. The spadix is cylindrical, covered with florets; the corolla hexapetalous and naked; there is no style; the follicles are monospermous.

OROONOKO, a great river of terra firma, in South America, which rises in Popayan, and falls into the sea with 16 mouths.

ORPHAN, a fatherless child or minor; or one that is deprived both of father and mother.

ORPHEUS, a celebrated poet and musician of antiquity. His reputation was established as early as the time of the Argonautic expedition, in which he was himself an adventurer; and is said by Apollonius Rhodius not only to have incited the Argonauts to row by the sound of his lyre, but to have vanquished and put to silence the sirens by the superiority of his strains. Yet, notwithstanding the great celebrity he had so long enjoyed, there is a passage in Cicero, which says, that Aristotle, in the third book of his *Poetics*, which is now lost, *doubted if such a person as Orpheus ever existed*. But as the work of Cicero, in which this passage occurs, is in dialogue, it is not easy to discover what was his own opinion upon the subject, the words cited being put into the mouth of Caius Cotta. And Cicero, in other parts of his writings, mentions Orpheus as a person of whose existence he had no doubts. There are several ancient authors, among whom is Suidas, who enumerate five persons of the name of *Orpheus*, and relate some particulars of each. And it is very probable that it has faded with Orpheus as with Hercules, and that writers have attributed to *one* the actions of *many*. But, however that may have been, we shall not attempt to collect all the fables that poets and mythologists have invented concerning him; they are too well known to need insertion here. We shall, therefore, in speaking of him, make use only of such materials as the best ancient historians, and the most respectable writers among the moderns, have furnished towards his history.

Dr Cudworth, in his *Intellectual System**, after examining and confuting the objections that have been made to the being of an Orpheus, and with his usual learning and abilities clearly establishing his existence, proceeds, in a very ample manner, to speak of the opinions and writings of our bard, whom he regards not only as the first musician and poet of antiquity, but as a great mythologist, from whom the Greeks derived the Thracian religious rites and mysteries. * Book I. Sect. 17.

"It is the opinion (says he) of some eminent philologists of later times, that there never was any such person as Orpheus, except in Fairy-land; and that his whole history was nothing but a mere romantic allegory, utterly devoid of truth and reality. But there

Orontium
||
Orpheus.

Orpheus. is nothing alleged for this opinion from antiquity, except the one passage of Cicero concerning Aristotle; who seems to have meant no more than this, that there was no such poet as Orpheus anterior to Homer, or that the verses vulgarly called *Orphical* were not written by Orpheus. However, if it should be granted that Aristotle had denied the existence of such a man, there seems to be no reason why his single testimony should preponderate against the universal consent of all antiquity: which agrees, that Orpheus was the son of *Cæger*, by birth a Thracian, the father or chief founder of the mythological and allegorical theology amongst the Greeks, and of all their most sacred religious rites and mysteries; who is commonly supposed to have lived before the Trojan war, that is, in the time of the Israelitish judges, or at least to have been senior both to *Hesiod* and *Homer*; and to have died a violent death, most affirming that he was torn in pieces by women, because their husbands deserted them in order to follow him. For which reason, in the vision of *Herus Pamphilus*, in *Plato*, Orpheus's soul passing into another body, is said to have chosen that of a swan, a reputed musical animal, on account of the great hatred he had conceived for all women, from the death which they had inflicted on him. And the historic truth of Orpheus was not only acknowledged by *Plato*, but also by *Isocrates*, who lived before *Aristotle*, in his oration in praise of *Busiris*; and confirmed by the grave historian *Diodorus Siculus*, who says, that Orpheus diligently applied himself to literature, and when he had learned τα μυθολογούμενα, or the mythological part of theology, he travelled into Egypt, where he soon became the greatest proficient among the Greeks in the mysteries of religion, theology, and poetry. Neither was his history of Orpheus contradicted by *Origen*, when so justly provoked by *Celsus*, who had preferred him to our Saviour; and, according to *Suidas*, Orpheus the Thracian was the first inventor of the religious mysteries of the Greeks, and that religion was thence called *Θρησκειά*, *Threskeia*, as if a Thracian invention. On account of the great antiquity of Orpheus, there have been numberless fables intermingled with his history; yet there appears no reason that we should disbelieve the existence of such a man."

Cudworth is also of opinion, that the poems ascribed to Orpheus were either written by him, or that they were very ancient, and contained his doctrines. He farther argues, that though Orpheus was a polytheist, and asserted a multiplicity of gods, he nevertheless acknowledged one supreme unmade deity, as the original of all things; and that the Pythagoreans and Platonists not only had Orpheus in great esteem, being commonly called by them the *Theologer*, but were also thought in great measure to have owed their theology and philosophy to him, deriving it from his principles and traditions.

* Warburton.

The bishop of Gloucester* speaks no more doubtfully of the existence of Orpheus than of *Homer* and *Hesiod*, with whom he ranks him, not only as a poet, but also as a theologian, and founder of religion.

The family of Orpheus is traced by *Sir Isaac Newton* for several generations: "Sefac passing over the Hellespont, conquers Thrace; kills *Lycurgus*, king

of that country; and gives his kingdom and one of his singing-women to *Cægrus*, the son of *Tharops*, and father of Orpheus; hence Orpheus is said to have had the muse *Calliope* for his mother."

He is allowed by most ancient authors to have excelled in poetry and music, particularly the latter; and that to such a degree, that he is represented as taming the most ferocious animals, changing the course of the winds by his melody, and as causing the trees of the forest to dance in concert with his lyre. This account, though we must suppose it fabulous, yet proves his excellence to have been great before it could have given rise to such fictions. He is said to have early cultivated the lyre, in preference to every other instrument: so that all those who came after him were contented to be his imitators; whereas, according to *Plutarch*, he adopted no model; for before his time no other music was known, except a few airs for the flute. Music was so closely connected in ancient times with the most sublime sciences, that Orpheus united it not only with philosophy, but with theology and legislation. He abstained from eating animal food; and held eggs in abhorrence as aliment, being persuaded that the egg subsisted before the chicken, and was the principle of all existence: both his knowledge and prejudices, it is probable, were acquired in Egypt, as well as those of *Pythagoras* many ages after.

With respect to his abstaining from the flesh of oxen, *Gesner* supposes it may have proceeded from the veneration shown to that animal so useful in tillage, in the Eleusinian mysteries instituted in honour of *Ceres*, the goddess of agriculture. He might have added, that, as these mysteries were instituted in imitation of those established in Egypt in honour of *Osiris* and *Isis*, this abstinence from animal food was of the like origin, and a particular compliment to *Apis*. But *Abbé Fraguier*, in an ingenious dissertation upon the *Orphic Life*, gives still more importance to the prohibition; for as Orpheus was the legislator and humanizer of the wild and savage Thracians, who were cannibals, a total abolition of eating human flesh could only be established by obliging his countrymen to abstain from every thing that had life.

With respect to theology, *Diodorus Siculus* tells us, that his father *Cægrus* gave him his first instructions in religion, imparting to him the mysteries of *Bacchus*, as they were then practised in Thrace. He became afterwards a disciple of the *Idæi Dactyli* in Crete, and there acquired new ideas concerning religious ceremonies. But nothing contributed so much to his skill in theological matters, as his journey into Egypt; where being initiated into the mysteries of *Isis* and *Osiris*, or of *Ceres* and *Bacchus*, he acquired a knowledge concerning initiations, expiations, funeral rites, and other points of religious worship, far superior to any one of his age and country. And being much connected with the descendants of *Cadmus*, the founder of Thebes in Bœotia, he resolved, in order to honour their origin, to transport into Greece the whole fable of *Osiris*, and apply it to the family of *Cadmus*. The credulous people easily received this tale, and were much flattered by the institution of the ceremonies in honour of *Osiris*. Thus Orpheus, who was held in great veneration at the Grecian Thebes, of which he was become a citizen, admirably adapted this

Burney's Hist. of Music, p. 310.

Diod. Siculus, lib. iv. cap. 25.

Orpheus, this fable, and rendered it respectable, not only by his beautiful verses and manner of singing them, but by the reputation he had acquired of being profoundly skilled in all religious concerns. Diodorus Siculus also says that he was a most attentive student in all kinds of literature, whether sacred or profane.

At his return into Greece, according to Pausanias, he was held in the highest veneration by the people, as they imagined he had discovered the secret of expiating crimes, purifying criminals, curing diseases, and appeasing the angry gods. He formed and promulgated an idea of a hell, from the funeral ceremonies of the Egyptians, which was received throughout all Greece. He instituted the mysteries and worship of Hecate among the Eginetes, and that of Ceres at Sparta.

Justin Martyr says, that he introduced among the Greeks near 360 gods; Hesiod and Homer pursued his labours, and followed the same clue, agreeing in the like doctrines, having all drank at the same Egyptian fountain.

Profane authors look upon Orpheus as the inventor of that species of magic called *evocation of the manes*, or raising ghosts; and indeed the hymns which are attributed to him are mostly pieces of incantation, and real conjuration. By all accounts he was an admirable musician: he is said to have received a lyre from Apollo, or according to some from Mercury, upon which he played with such a masterly hand, that even the most rapid rivers ceased to flow, the savage beasts of the forest forgot their wildness, and the mountains came to listen to his song. All nature seemed charmed and animated, and the nymphs were his constant companions. Eurydice was the only one who made a deep impression on the melodious musician, and their nuptials were celebrated. Their happiness, however, was but short: for Aristæus became enamoured of her; and as she fled from her pursuer, a serpent that was lurking in the grass bit her foot, and she died of the poisoned wound. Her loss was severely felt by Orpheus, and he resolved to recover her or perish in the attempt. With his lyre in his hand, he entered the infernal regions, and gained an easy admission to the palace of Pluto. The king of hell was charmed with the melody of his strains; and according to the beautiful expressions of the poets, the wheel of Ixion stopped, the stone of Sisyphus stood still, Tantalus forgot his perpetual thirst, and even the furies relented. Pluto and Proserpine were moved with his sorrow, and consented to restore him Eurydice, provided he forbore looking behind him till he had come to the extremest borders of hell. The conditions were gladly accepted, and Orpheus was already in sight of the upper regions of the air, when he forgot his promises, and turned back to look at his long lost Eurydice.

All dangers past, at length the lovely bride
In safety goes, with her melodious guide;
Longing the common light again to share,
And draw the vital breath of upper air:
He first, and close behind him followed she;
For such was Proserpine's severe decree.
When strong desires th' impatient youth invade;
By little caution, and much love betrayed:

A fault which easy pardon might receive,
Were lovers judges, or could hell forgive.
For near the confines of ethereal light,
And longing for the glimm'ring of a sight,
Th' unwary lover cast a look behind,
Forgetful of the law, nor master of his mind.
Straight all his hopes exhal'd in empty smoke;
And his long toils were forfeit for a look.

DRYDEN'S Virgil.

He saw her, but she instantly vanished from his eyes: He attempted to follow her, but he was refused admission; and the only comfort he could find was to sooth his grief at the sound of his musical instrument in grottoes or on the mountains. He totally separated himself from the society of mankind; and the Thracian women, whom he had offended by his coldness to their amorous passion, or, according to others, by his unnatural gratifications and impure indulgencies, attacked him while they celebrated the orgies of Bacchus; and after they had torn his body to pieces, they threw his head into the Hebrus, which still articulated the words Eurydice! Eurydice! as it was carried down the stream into the Ægean sea. Others think, that, as he attempted to conjure his wife from the dead, which they understand by the story of his going down to hell, he thought he saw her; and when afterwards, on looking back, he missed her, he died of grief. There is certainly some reason for supposing this to be the case: for there were persons and temples publicly appointed for the purpose; and Pausanias really speaks of that temple which was in Thesprotia, and where Orpheus went to call up the ghost of Eurydice. Poets often mention this subject; and instances of it occur in history both sacred and profane. The witch of Endor is well known to those who read the historical part of the Bible. But to particularise instances, whether sacred or profane, would be endless. Some maintain that he was killed by a thunder-bolt. He was buried at Pieria in Macedonia, according to Apollodorus. The inhabitants of Dion boasted that his tomb was in their city, and the people of Mount Libethrus in Thrace claimed the same honour; and farther observed that the nightingales which built their nests near his tomb, sang with greater melody than all other birds. Orpheus, as some report, after death received divine honours; the muses gave an honourable burial to his remains, and his lyre became one of the constellations in the heavens.

Tzetzes explains the fable of his drawing his wife Eurydice from hell, by his great skill in medicine, with which he prolonged her life, or, in other words, snatched her from the grave. Æsculapius, and other physicians, have been said to have raised from the dead those whom they had recovered from dangerous diseases.

The bishop of Gloucester, in his learned, ample, and admirable account of the Eleusinian mysteries, says, "While these mysteries were confined to Egypt their native country, and while the Grecian lawgivers went thither to be initiated, as a kind of designation to their office, the ceremony would be naturally described in terms highly allegorical. This way of

Orpheus. speaking was used by Orpheus, Bacchus, and others : and continued even after the mysteries were introduced into Greece, as appears by the fables of Hercules, Castor, Pollux, and Theseus's descent into hell ; but the allegory was so circumstanced, as to discover the truth concealed under it. So Orpheus is said to get to hell by the power of his harp :

Threicia fretus cithara, fidibusque canoris.

VIRG. *Æn.* vi. ver. 119.

That is, in quality of lawgiver ; the harp being the known symbol of his laws, by which he humanized a rude and barbarous people.—Had an old poem, under the name of *Orpheus*, intitled *A descent into Hell*, been now extant, it would perhaps have shown us, that no more was meant than Orpheus's initiation." See MYSTERIES.

Many ancient writers, in speaking of his death, relate, that the Thracian women, as hinted at above, enraged at being abandoned by their husbands, who were disciples of Orpheus, concealed themselves in the woods, in order to satiate their vengeance ; and, notwithstanding they postponed the perpetration of their design some time through fear, at length, by drinking to a degree of intoxication, they so far fortified their courage as to put him to death. And Plutarch assures us, that the Thracians stigmatized their women, even in his time, for the barbarity of this action.

Warburton.

Our venerable bard is defended by the author * of the *Divine Legation*, from some insinuations to his disadvantage in Diogenes Laertius. "It is true (says he), if uncertain report was to be believed, the mysteries were corrupted very early ; for Orpheus himself is said to have abused them. But this was an art the debauched myſtæ of later times employed to varnish their enormities ; as the detested pæderasts of after-ages scandalized the blameless Socrates. Besides, the story is so ill laid, that it is detected by the surest records of antiquity : for in consequence of what they fabled of Orpheus in the mysteries, they pretended he was torn in pieces by the women ; whereas it appeared from the inscription on his monument at Dium in Macedonia, that he was struck dead with lightning, the envied death of the reputed favourites of the gods."

This monument at Dium, consisting of a marble urn on a pillar, was still to be seen in the time of Pausanias. It is said, however, that his sepulchre was removed from Libethra, upon Mount Olympus, where Orpheus was born, and from whence it was transferred to Dium by the Macedonians, after the ruin of Libethra by a sudden inundation which a dreadful storm had occasioned. This event is very minutely related by Pausanias.

Virgil bestows the first place in his Elysium upon the legislators, and those who brought mankind from a state of nature into society :

Magnanimi heroës, nati melioribus annis.

At the head of these is Orpheus, the most renowned of the European lawgivers, but better known under the character of a poet : for the first laws being written in measure, to allure men to learn them, and, when learnt, to retain them, the fable would have it, that by the force of harmony Orpheus softened the savage inhabitants of Thrace :

*Threicius longa cum veste sacerdos
Obloquitur numeris septem discrimina vocum :
Jamque eadem digitis, jam pectine pulsat eburno.*

ÆN. lib. vi. ver. 645.

Orpheus.

The seven strings given by the poet in this passage to the lyre of Orpheus, is a circumstance somewhat historical. The first Mercurean lyre had, at most, but four strings. Others were afterwards added to it by the second Mercury, or Amphion : but, according to several traditions preserved by Greek historians, it was Orpheus who completed the second tetrachord, which extended the scale to a heptachord, or seven sounds, implied by the *septem discrimina vocum*. For the assertion of many writers, that Orpheus added two new strings to the lyre, which before had seven, clashes with the claims of Pythagoras to the invention of the octachord, or addition of the sound *proflambanomenos* to the heptachord, of which almost all antiquity allows him to have been the inventor. And it is not easy to suppose, that the lyre should have been represented in ancient sculpture with four or five strings only, if it had had nine so early as the time of Orpheus, who flourished long before sculpture was known in Greece. See the article LYRE.

With respect to the writings of Orpheus, he is mentioned by Pindar as author of the *Argonautics*, and Herodotus speaks of his *Orphics*. His hymns, says Pausanias, were very short, and but few in number : the Lycomides, an Athenian family, knew them by heart, and had an exclusive privilege of singing them, and those of their old poets, Musæus, Onomacritus, Pamphus, and Olen, at the celebration of the Eleusinian mysteries ; that is, the priesthood was hereditary in this family.

Jamblicus tells us, that the poems under the name of *Orpheus* were written in the Doric dialect, but have since been transdialected, or modernised. It was the common opinion in antiquity that they were genuine ; but even those who doubted of it, gave them to the earliest Pythagoreans, and some of them to Pythagoras himself, who has frequently been called the follower of Orpheus, and has been supposed to have adopted many of his opinions.

Of the poems that are still subsisting under the name of *Orpheus*, which were collected and published at Nuremberg 1702, by Andr. Christ. Eschenbach, and which have been since reprinted at Leipzig 1764, under the title of *ORPHEÏΣ ΑΠΑΝΤΑ*, several have been attributed to Onomacritus, an Athenian, who flourished under the Pyſistratidæ, about 500 years before Christ. Their titles are, 1. The *Argonautics*, an epic poem. 2. Eighty-six hymns ; which are so full of incantations and magical evocation, that Daniel Heinsius has called them *veram Satanae liturgiam*, "the true liturgy of the devil." Pausanias, who made no doubt that the hymns subsisting in his time were composed by Orpheus, tells us, that though less elegant, they had been preferred for religious purposes to those of Homer. 3. *De lapidibus*, a poem on precious stones. 4. Fragments, collected by Henry Stevens. Orpheus has been called the inventor, or at least the propagator, of many arts and doctrines among the Greeks. 1. The combination of letters, or the art of writing. 2. Music, the

Orpheus, the lyre, or *cithara*, of seven strings, adding three to that of Mercury. 3. *Hexameter verse*. 4. *Mysteries* and *theology*. 5. *Medicine*. 6. *Magic* and *divination*. 7. *Astrology*. Servius upon the sixth *Æneid*, p. 450, says Orpheus first instituted the harmony of the spheres. 8. He is said likewise to have been the first who imagined a plurality of worlds, or that the moon and planets were inhabited.

ORPHEUS, in ichthyology, the name of a fish caught in the Archipelago. It is of a broad and flat figure, and of a fine purple colour; its eyes are large and prominent, and its teeth serrated; it has only one fin on the back, and the anterior rays of that are prickly, the others soft to the touch; its anus is small, and is said to have no passage for the semen.

This was the fish called *orpheus* by the ancients, but the modern Greeks call another fish by that name. It is a species of the sparus, of a flat figure, but very thick, has a small mouth, and is covered with small but very rough scales, which adhere very firmly to the flesh; the tail is not forked; it has fleshy lips, and very small teeth; its back and sides are black; its belly white; it has a large black spot at the root of the tail; its head is reddish, and its fins are very elegantly diversified with various colours; it has only one back-fin, and that has the anterior ray prickly, the hinder ones not at all so. It grows sometimes to 20 pounds weight, and is much esteemed among the modern Greeks.

ORPIMENT, *auripigmentum*, in natural history, a bituminous mineral composed of sulphur and arsenic, sometimes artificially produced, but found also native in the earth, and constituting one of the ores of arsenic. It is of two kinds, red and yellow, the former generally found in an indurated state; though Cronstedt supposes that it may also be met with in loose scaly powder, as it is sometimes met with in the shops. It is commonly found in shapeless masses, very seldom crystallised; though Baron Borne once found it in a polyhedral form on a blue clay in Hungary. The name *red orpiment* has been given by the more judicious to sandarach, and by the vulgar to red arsenic; but it is to be restrained only to this fossil, which is of a fine bright red, and of the regular texture of the orpiments, and answering all their characters. It is a very beautiful substance of a fine bright red, very glossy, and a little transparent, and is found in the Turkish dominions, in the islands of the Archipelago, and even in our own country, Dr Hill having received some of it from Cornwall, under the name of *red mundic*. The yellow kind is met with commonly of shining flexible lamellæ like mica, the specific gravity about 5.515. It burns with a blue flame, and contains about one tenth of its weight of sulphur. It is found native in Hungary, and in many parts of Germany and the Turkish dominions: it is the common orpiment of the shops. Some are of opinion, that the noxious qualities of the arsenic are so much counteracted by the sulphur with which this substance is mixed, that it may be swallowed with safety; but Macquer positively asserts the contrary, and very seriously cautions against its use, even though we be certain that the orpiment is native. There is besides a broad-flaked, gold-coloured kind, well known among the ancients, as is plain from the description

of it left us by Dioscorides, and much esteemed at present by our painters. This is found in several places, as in the islands of the Archipelago, in the mines of Gosselaer in Saxony, in some parts of Turkey, and the East Indies, and in its utmost purity about Smyrna; this makes the finest of all yellows in painting. The small-flaked, yellow kind, which is the common orpiment of the shops, is also a fine colour, though greatly inferior to the former. The Indians use orpiment, corrected with juice of lemons, with good success against fevers.

The red arsenic, or *realgar*, is likewise found in an indurated state, and in irregular or stalactitical masses. It is either opaque or semitransparent; sometimes it is found quite transparent, and regularly crystallised in octoedral prisms or pyramids; in which last form it is called *ruby of arsenic*. Its specific gravity is about 3.225; it contains 16 per cent. of sulphur; and its red colour is easily destroyed by the nitrous acid. In order to analyse these two kinds of orpiment, they ought to be digested in marine acid, adding the nitrous by degrees to assist the solution. The sulphur is then left on the filter, while the arsenic remains in the solution, from which it may be precipitated in its metallic form by zinc, adding spirit of wine to the solution.

ORPINE, in botany. See SEDUM.

ORRERY, a curious machine for representing the motions or phases of the heavenly bodies. See ASTRONOMY, n° 13, 487, 488, and 490.

The reason of its being called an *Orrery*, was this: Mr Rowley, a mathematical instrument-maker, having got one from Mr George Graham, the original inventor, to be sent abroad with some of his own instruments, he copied it, and made the first for the earl of Orrery. Sir Richard Steel, who knew nothing of Mr Graham's machine, thinking to do justice to the first encourager, as well as to the inventor, of such a curious instrument, called it an *Orrery*, and gave Mr Rowley the praise due to Mr Graham.

It would be too great an undertaking here to give an account of the mechanism of the larger sort of orreries, which represent the movements of all the heavenly bodies; nor indeed can it be done either by diagram or description, to render it intelligible to the most discerning reader: but, instead of that, we shall exhibit an idea of the theory and structure of an useful, concise, and portable planetarium, which any gentleman may have made for a small expence, and will exhibit very justly the motions of all the primary planets about the sun, by wheel-work; and those that have secondaries, or moons, may have them placed about their primaries moveable by the hand, so that the whole shall be a just representation of the solar system, or true state of the heavens, for any given time of the year.

In order to this, we must compare, and find out the proportion, which the periodical times, or revolutions of the primary planets, bear to that of the earth: which, with respect to the Georgium Sidus, are not as yet sufficiently ascertained; but those of the other planets are such as are expressed in the table below, where the first column is the time of the earth's period in days and decimal parts; the second, that of the planets; the third and fourth are numbers in the same proportion to each other: as,

Orpine,
Orrery.

Orrery
||
Orrus.

365,25 : 88 ♄ : : 83 : 20, for Mercury.
365,25 : 224,7 ♀ : : 52 : 32, for Venus.
365,25 : 686,9 ♂ : : 40 : 75, for Mars.
365,25 : 4332,5 ♃ : : 7 : 83, for Jupiter.
365,25 : 10759,3 ♄ : : 5 : 148, for Saturn.

Plate
CCCLXIX.

If we now suppose a spindle or arbor with six wheels fixed upon it in an horizontal position, having the number of teeth in each corresponding to the numbers in the third column, viz. the wheel AM of 83 teeth, BL of 52, CK of 50 (for the earth), DI of 40, EH of 7, and FG of 5; and another set of wheels moving freely about an arbor, having the number of teeth in the fourth column, viz. AN of 20, BO of 32, CP of 50 (for the earth), DQ of 75, ER of 83, and FS of 148; then, if those two arbors of fixed and moveable wheels are made of the size, and fixed at the distance from each other, as here represented in the scheme, the teeth of the former will take those of the latter, and turn them very freely when the machine is in motion.

These arbors, with their wheel, are to be placed in a box, of an adequate size, in a perpendicular position; the arbor of fixed wheels to move in pivots at the top and bottom of the box; and the arbor of moveable wheels to go through the top of the box, to a proper height, on the top of which is to be placed a round ball gilt with gold to represent the sun. On each of the moveable wheels is to be fixed a socket, or tube, ascending above the top of the box, and having on the top a wire fixed, and bent at a proper distance into a right angle upwards, bearing on the top a small round ball, representing its proper planets.

If then on the lower part of the arbor of fixed wheels be placed a pinion of screw-teeth, a winch turning a spindle with an endless screw, playing in the teeth of the arbor, will turn it with all its wheels; and these wheels will move the others about, with their planets, in their proper and respective periods of time, very exactly. For while the fixed wheel CK moves its equal CP once round, the wheel AM will move AN a little more than four times round, and so will nearly exhibit the motion of Mercury; and the wheel FG will turn the wheel FS about $\frac{1}{29.5}$ round, and so will truly represent the motion of Saturn: and the same is to be observed of all the rest.

ORRERY (Earls of). See BOYLE.

ORRICE. See IRIS.

ORRUS, in botany, a name by which many of the ancients called the cultivated pine-tree, from its being remarkably full of juice.

The first person who has given us the name is Theophrastus; but he is followed in it not only by the other Greeks, but also by the Latins, who have called the same tree for the same reason *sapinus*, a contraction or abbreviation of the word *sapapinus*, the juicy pine. Pliny tells us, that this last was the name of the manured pitch tree; but in this he errs; for Vitruvius, and others, tell us, that the pine-nuts, *nuces pineæ*, which were eaten and used in medicine, were the fruit of the *sapapinus*, or *sapinus*; and it is evident, that these must be the produce of a pine-tree, not of a pitch-tree, or any thing of the fir kind.

ORSATO (Sertorio), a celebrated antiquarian, historian, and poet, was born at Padua in 1617, and early discovered a taste for literature and the sciences. He applied himself to searching out antiquities and ancient inscriptions; for which purpose he travelled through all the different parts of Italy, and in the mean time poetry was his amusement. When advanced in age, he taught natural philosophy in the university of Padua. He was also a member of the academy of the Ricovrati. Having presented to the doge and senate of Venice the history of Padua, which he had dedicated to them, he made a long speech, during which he struggled with a natural want, and died of suppression of urine, on the 3d of July 1678. He wrote a great number of books which are esteemed, some in Latin, and others in Italian.

He ought not to be confounded with John Baptist ORSATO, an able physician and antiquary, who was born at Padua in 1673, and wrote, 1. *Dissertatio epistolaris de Lucernis antiquis*. 2. A dissertation *De patera antiquorum*. 3. A small treatise *De sternis veterum*; and some other works.

ORSI (John Joseph), an ingenious philologer and poet, was born at Bologna in the year 1652; and studied polite literature, philosophy, the civil law, and mathematics. His house was a kind of academy, where many persons of literature regularly assembled. He wrote many ingenious sonnets, pastorals, and other works in Italian, and died in 1733.

ORTEGAL CAPE, the most northern promontory of Spain, where there is also a castle of the same name. W. Long. 8.20. N. Lat. 44.0.

ORTELIUS (Abraham), a celebrated geographer, born at Antwerp, in 1527, was well skilled in the languages and the mathematics, and acquired such reputation by his skill in geography, that he was surnamed the *Ptolemy of his time*. Justus Lipsius, and most of the great men of the 16th century, were Ortelius's friends. He resided at Oxford in the reign of Edward VI. and came a second time into England in 1577. His *Theatrum Orbis* was the completest work of the kind that had ever been published, and gained him a reputation equal to his immense labour in compiling it. He also wrote several other excellent geographical works; the principal of which are his *Theaurus*, and his *Synonyma Geographica*. The world is likewise obliged to him for the *Britannia*, which he persuaded Camden to undertake. He died at Antwerp in 1598.

ORTHEZ, a city in the province of Bearn, and perhaps the meanest in all France. It was, however, till the Revolution, a bishop's see. The cathedral is a wretched edifice, very ancient, built in a barbarous style, and almost in ruins. The remains of the castle of Orthez are very noble, and its situation is fine, on a hill, which commands the town and a great extent of country. The people call it *Le Chateau de la Reine Jeanne*, because that queen resided in it during many years, in preference to the castle of Pau. Some of the apartments, though in ruins, may yet be entered. The princess Blanche, daughter to John king of Arragon and Navarre, was shut up, and died here, in 1464. Her brother being dead, she became heiress to the crown of Navarre; but her father having delivered her into the hands of her younger sister Leonora countess of

Orsato
||
Orthez.

Orthodox of Foix, she confined the unhappy Blanche in the castle of Orthez, and, after an imprisonment of two years, caused her to be poisoned.

ORTHODOX, in church history, an appellation given to those who are found in all the articles of the Christian faith.

ORTHOGRAPHIC PROJECTION of the SPHERE, that wherein the eye is supposed to be at an infinite distance; so called, because the perpendiculars from any point of the sphere will all fall in the common intersection of the sphere with the plane of the projection. See **GEOGRAPHY**, n° 63, &c. and **PROJECTION**.

ORTHOGRAPHY, that part of grammar which teaches the nature and affections of letters, and the just method of spelling or writing words, with all the proper and necessary letters, making one of the four greatest divisions or branches of grammar. See **GRAMMAR**.

ORTHOGRAPHY, in geometry, the art of drawing or delineating the fore-right plan of any object, and of expressing the heights or elevations of each part. It is called *Orthography*, for its determining things by perpendicular lines falling on the geometrical plane.

ORTHOGRAPHY, in architecture, the elevation of a building.

ORTHOGRAPHY, in perspective, is the fore-right side of any plane, i. e. the side or plane that lies parallel to a straight line, that may be imagined to pass through the outward convex points of the eyes, continued to a convenient length.

ORTHOPNOEA, a species or degree of asthma, where there is such a difficulty of respiration that the patient is obliged to sit or stand upright in order to be able to breathe. See **MEDICINE**, n° 291.

ORTIVE, in astronomy, the same with *eastern*. The ortive or eastern amplitude, is an arch of the horizon intercepted between the place where a star rises, and the east point of the horizon, or point where the horizon and equator intersect.

ORTOLAN, in ornithology. See **EMBERIZA**.

ORTNAU, a county of Germany, in the circle of Suabia, lying along the Rhine, and separating it from Alsace. It is bounded on the south by Breslau, on the north by the margravate of Baden, and on the east by the duchy of Wirtemberg. It contains three imperial towns; namely, Offenburg, Gegenbach, and Zell. It belongs partly to the house of Austria, partly to the bishopric of Spire, and partly to the county of Hannau.

ORTYGINA, the birth-place of Diana, was a beautiful grove of trees of various kinds, chiefly cypresses, near Ephesus; on the coast, a little up from the sea. This place was filled with shrines and images. The priests of the goddess were eunuchs, and exceedingly respected by the people. A general assembly was held there yearly, and splendid entertainments were provided, and mystic sacrifices solemnized. The Cenchrius, probably a crooked river, ran through it; and above it was the mountain Solmissus, on which, it was fabled, the Curetes stood, and rattled on their shields, to divert the attention of Juno. The improved face of a country is perishable like human beauty. Not only the birth-place of Diana and its sanctity are forgotten, but the grove and buildings which adorned it appear no more; and perhaps, says Dr Chandler,

the land has encroached on the sea, and the valley, in which Arvisia is, was once Ortygia. See **EPHESUS** and **DIANA**, &c.

ORVIETO, a town of Italy, in the patrimony of St Peter, with a bishop's see, and a magnificent palace. It is the capital of the province of Orvietano, in the ecclesiastic state, in E. Long. 13. Lat. 43. It is a large strong town, situated at the conflux of the Tiber and the Chiane, on a steep hill, surrounded on every side with rocks and precipices. To this situation it is owing that it has no springs; but there is a very surprising well cut into the rock, to supply it with fresh water. The mules which bring up the water on their backs, go down by a staircase of 150 steps, and 60 windows, and come up by another, without meeting. The architect of this singular building was the famous Antonio da San Gallo, employed by Clement VII. At the entrance is this inscription, *Quod natura munimento inviderat, industria adjecit*. This city, called *Herbanum* by Pliny, and *Urbevetanum* by Procopius, is the see of a bishop suffragan of Rome. The cathedral, which is of Gothic architecture, is a handsome building, which was begun in 1260 by Nicolo Pisano. The front is adorned with fine statues, among the rest the Virgin Mary and the four Evangelists, with a basso-relievo of the last judgment, by the said Nicolo Pisano, and others representing some histories of the old testament. The other half of the front is a surprising work in Mosaic, by Scalzi, expressing the history of the new testament. In the church there is a very fine organ, and a basso-relievo of Raphael da Monte Lupo. Here is also a chapel, which was begun to be painted by F. Angelo, a dominican, and finished by Luke Signorelli, where you see a very beautiful representation of the last judgment. Orvieto was once a potent and populous city, but is now much upon the decline.

ORYZA, RICE, in botany: A genus of the digynia order, belonging to the hexandria class of plants; and in the natural method ranking under the 4th order, *Gramina*. The calyx is a bivalved uniflorous glume; the corolla bivalved, nearly equal, and adhering to the seed. There is but one species, namely the sativa or common rice. This plant is greatly cultivated in most of the eastern countries, where it is the chief support of the inhabitants; and great quantities of it are brought into England and other European countries every year, where it is much esteemed for puddings, &c. it being too tender to be produced in these northern countries without the assistance of artificial heat; but from some seeds which were formerly sent to Carolina there have been great quantities produced, and it is found to succeed as well there as in the eastern countries.

This plant grows upon moist soils, where the ground can be flowed over with water after it is come up. So that whoever would cultivate it in this country should sow the seeds upon a hot-bed; and when the plants are come up, they should be removed into pots filled with light rich earth, and placed in pans of water, which should be plunged into a hot bed; and, as the water wastes, it must from time to time be renewed again. In July these plants may be set abroad in a warm situation, still preserving the water in the pans, otherwise they will not thrive; and, toward the latter end

Orvieto,
Oryza.

Oryza.

of August, they will produce their grain, which will ripen tolerably well, provided the autumn proves favourable. The leaves of rice are long, like the reed, and fleshy; the flowers blow on the top like barley; but the seed which follows is disposed in clusters, each of which is inclosed in a yellow husk, ending in a spiral thread. The seed is oblong, or rather oval, and white.

Rice is the chief commodity and riches of Damietta in Egypt. Dr Hasselquist gives the following description of the manner in which they dress and separate it from the husks. "It is pounded by hollow iron pestles of a cylindrical form, lifted up by a wheel worked by oxen. A person sitting between the two pestles, pushes forward the rice when the pestles are rising; another sifts, winnows, and lays it under the pestles. In this manner they continue working it until it is entirely free from chaff and husks. When clean, they add a 30th part of salt, and pound them together; by which the rice, formerly grey, becomes white. After this purification, it is passed through a fine sieve to part the salt from the rice; and then it is ready for sale." Damietta sells every year 60,800 sacks of rice, the greatest part of which goes to Turkey, some to Leghorn, Marseilles, and Venice.

Rice, according to Dr Cullen, is preferable to all other kinds of grain, both for largeness of produce, quantity of nourishment, and goodness. This, he says, is plain from macerating the different grains in water; for, as the rice swells to the largest size, so its parts are more intimately divided. Rice is said to affect the eyes; but this is purely prejudice. Thus it is alleged a particular people of Asia, who live on this grain, are blind-eyed: but if the soil be sandy, and not much covered with herbage, and as these people are much employed in the field, this affection of their eyes may be owing to the strong reflection of the rays of light from this sandy soil; and our author is the more inclined to this opinion, because no such effect is observed in Carolina, where rice is very commonly used.

Dr Percival informs us, that as a wholesome nourishment rice is much inferior to salep. He digested several alimentary mixtures prepared of mutton and water, beat up with bread, sea-biscuit, salep, rice flour, sago powder, potato, old cheese, &c. in a heat equal to that of the human body. In 48 hours they had all acquired a vinous smell, and were in brisk fermentation, except the mixture with rice, which did not emit many air-bubbles, and was but little changed. The third day several of the mixtures were sweet, and continued to ferment; others had lost their intestine motion, and were sour; but the one which contained the rice was become putrid. From this experiment it appears that rice, as an aliment, is slow of fermentation, and a very weak corrector of putrefaction. It is therefore an improper diet for hospital patients, but more particularly for sailors, in long voyages, because it is incapable of preventing, and will not contribute much to check the progress of, that fatal disease the sea-scurvy. Under certain circumstances, rice seems disposed of itself, without mixture, to become putrid. For by long keeping it sometimes acquires an offensive sœtor. Nor, according to our author, can it be considered as a very nutritive kind of food, on account of its difficult solubili-

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ty in the stomach. Experience confirms the truth of this conclusion; for it is observed by the planters in the West Indies, that the negroes grow thin, and are less able to work, whilst they subsist upon rice.

ORYZIVERA, called the rice-bird of Catesby. It is about the size of a sparrow, being six inches three quarters long, with the head, and whole under side of the body, black; hind part of the neck in some pale yellow, in others white; coverts of the wings and primaries black; the last edged with white; part of the scapulars, lesser coverts of the wings, and rump, white; back black, edged with dull yellow; tail of the same colours, and each feather sharply pointed: the legs are red. The head, upper part of the neck, and back, of the female is yellowish brown, spotted with black; under part of a dull yellow; sides thinly streaked with black. These birds inhabit in vast numbers the island of Cuba, where they commit great ravages among the early crops of rice, which precede those of Carolina. As soon as the crops of that province are to their palate, they quit Cuba, and pass over the sea, in numerous flights, directly north, and are very often heard in their passage by sailors frequenting that course. Their appearance is in September, while the rice is yet milky; and they commit such devastations, that forty acres of that grain have been totally ruined by them in a small time. They arrive very lean, but soon grow so fat as to fly with difficulty; and when shot often burst with the fall. They continue in Carolina not much above three weeks, and retire by the time the rice begins to harden, going on to other parts, and staying in each only so long as the rice continues green. They come into Rhode Island and New York at the end of April, or the second week in May, frequenting the borders of fields, and live on insects, &c. till the maize is fit for their palate, when they begin by pecking holes in the sides of the husks, and after satiating themselves go on to another, which leaves room for the rain to get in, and effectually spoils the plants. They continue there during the summer, and breed, returning as autumn approaches to the southward. The males and females do not arrive together; the females come first. They are esteemed to be the most delicate birds of those parts, and the male is said to have a fine note. This species is known in the country by the names of *Bob Lincoln* and *Conquedle*; likewise called by some the *White-backed Maize-thief*.

OSBORN (Francis), an eminent English writer in the 17th century. He was educated in a private manner; and at ripe years frequented the court, and was master of the horse to William earl of Pembroke. Upon the breaking out of the civil wars, he adhered to the parliament party, and had several public employments conferred upon him. In the latter part of his life he lived at Oxford, in order to print several books, and to look after his son, for whom, by the favour of the parliament, he procured a fellowship in All-souls college. His *Advice to a son*, so soon as it was published, being complained of to Dr John Tenant, vice-chancellor of Oxford, as of irreligious tendency, there was a proposal made to have it publicly burnt; but that taking no effect, it was ordered that no bookseller or others should sell it, which only made it sell the faster. He wrote also *Historical Memoirs of the*

2

reigns

Osophoria. reigns of queen Elizabeth and king James I.; a Discourse on the greatness and corruption of the church of Rome; a Discourse upon Machiavel, &c. He died in 1659.

OSCHOPHORIA, a festival observed by the Athenians. It receives its name *απο τῆς φέρειν τὰς οἰχάς*, "from carrying boughs hung up with grapes," called *οἰχάι*. Its original institution is thus mentioned by *Plut. in Theseus*. Theseus, on returning from Crete, forgot to hang out the white sail, by which his father was to be apprized of his success. This neglect proved fatal to *Ægeus*, for he threw himself into the sea, and perished. Theseus no sooner reached the land, than he sent a herald to inform his father of his safe return, and in the mean time he began to make the sacrifices which he had vowed to make when he first set sail from Crete. The herald, on his entrance into the city, found the people in great agitation. Some lamented the king's death, while others, elated at the sudden news of the victory of Theseus, crowned the herald with garlands in token of their joy. The herald carried back the garlands on his staff to the sea shore; and, after waiting till Theseus had finished his sacrifice, he related the melancholy account of the king's death. Upon this the people ran in crowds to the city, showing their grief by cries and lamentations — From this circumstance, therefore, at the feast of *Oschophoria*, not the herald but his staff is crowned with garlands, and all the people that are present always exclaim *εὐχάου, ἡν, ἡν*, the first of which expresses haste, and the others a consternation or depression of spirits. The historian further mentions, that Theseus, when he went to Crete, did not take with him the usual number of virgins, but that in the place of two of them, he took two youths of his acquaintance, whom he caused to pass for women, by disguising their dress, and by accustoming them to the ointments and perfumes of women, as well as by a long and successful imitation of their voice. The imposition succeeded; their sex was not discovered in Crete; and when Theseus had triumphed over the Minotaur, he with these two young men led a procession, with branches in their hands, in the same habit, which is still used at the celebration of the festival. The branches which were carried were in honour of Bacchus or Ariadne, or because they returned in autumn, when the grapes were ripe. Besides this procession, there was also a race, in which young men only whose parents were both alive were permitted to engage. It was customary for them to run from the temple of Bacchus to that of Minerva, which was on the sea-shore. The place where they stopped was called *οἰχοφῶριον*, because the boughs which they carried in their hands were deposited there. The rewards of the conqueror was a cup called *πενταπλοῦν* "five-fold," because it contained a mixture of five different things, wine, honey, cheese, meal, and oil.

OSCILLA, small images of wax or clay made in the shape of men or women, and consecrated to Saturn, to render him propitious. The word is sometimes used to signify a kind of masks scooped from the bark of trees, and worn by the performers of comedy in the ruder ages of Rome. In this sense we find it in *Virg. Geo. ii. 386*. It also signifies little heads or images of Bacchus, which the countrymen of old hung upon trees, that the face might turn every way,

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out of a notion that the countenance of this god gave felicity to themselves, and fertility to their vineyards. An allusion to this opinion and custom is also found in *Virgil, Geo. ii. 388*.

OSENEY-ISLAND, in England, is formed by the river *Isis* in the meadows near Oxford, where a magnificent abbey was erected, at the instigation of a concubine of King Henry I. to atone for her sins; and the said king built a palace there, wherein King Richard I. was born, which Edward II. converted into a monastery.

OSIRIS, in mythology, one of the gods of ancient Egypt, and very generally believed to have been the sun, or at least the mind actuating that luminary.

The Egyptians derived all things from two principles, an *active* and a *passive*. Their active principle, according to the learned *Jablonski**, was an infinite and eternal *spirit*; and their passive principle was *night*. This spirit they considered sometimes as a *male*, sometimes as a *female*, divinity, and occasionally they attributed to it *both sexes*; but it does not appear to have been the object of their worship. It shall be shown elsewhere (see *POLYTHEISM*), that the earliest objects of pagan adoration were the sun, moon, and planets; and that the philosophers and priests of ancient Egypt worshipped the sun by the name of *Osiris*, may be proved by numberless testimonies from the most authentic records of antiquity. *Diogenes Laertius* affirms, that they held the sun and moon for divinities, and that they called the latter *Isis*; and *Macrobius* says expressly, "*Nec in occulto est, neque aliud esse Osirin quam Solem, nec Isim aliud esse quam terram.*" The same writer informs us, that in the hieroglyphic writings of ancient Egypt, "*Osiris* was represented by a sceptre and an eye," to denote that this god was the *sun* looking down from heaven on all things upon earth.

It must not, however, be concealed, that some of the ancients, and a few of the most learned moderns, have contended, that by *Osiris* the Egyptians understood the Nile or spirit of the Nile, whilst others have confounded him with the Grecian Bacchus. *Scaliger* and *Selden* have adopted the former of these opinions, and *Servius* on *Virgil* has given his countenance to the latter. But that they are all mistaken, has been evinced by *Jablonski* in such a manner as to enforce the fullest conviction: "When the Egyptians, in their sacred books, sometimes give the name of *Osiris* to the Nile and its wonderful increase during the heat of summer, they mean nothing more (says he) but to attribute to their god *Osiris* the gift which fertilizes their country." This they would the more readily do that they believed the Nile to have its source in heaven.

Hence *Eusebius* tells us†, *Ὁσίρις ἐστὶν ὁ Νεῖλος, ὃν εἰς οὐρανὸν κατέπεμψε θεὸς οἰονταί, Osiris is the Nile, because they think it is sent down from heaven.*—In one sense *Osiris* might be Bacchus, because the original Bacchus was himself the sun (see *MYSTERIES*, n^o 12.); but that the Egyptian god could not be worshipped as the inventor of wine is indeed undeniable, if, as *Jablonski* labours to prove, the primitive religion of that country inculcated upon its votaries, that wine was the gift, not of a benevolent god, but of an evil genius, the enemy of the human race. In support of this opinion our learned author quotes a passage from *Plutarch*, from which it appears, that, before the æra of *Prommetichus*, the Egyptians

Osenev.
Osiris.

* *Panth.*
Ægypt.

† *Prepar.*
Evangel.

Osiris.

Egyptians neither drank wine themselves nor offered it in libations to the gods, because they believed that the first vine sprung from the earth that was impregnated by the blood of those giants who perished in the war with the gods. It is indeed true, that the Greeks, who borrowed their religion as well as the first principles of science from Egypt, attributed to their Bacchus many of the actions of Osiris; but it is likewise true, that they gave him other attributes, which the Egyptian god could not possess consistently with the known superstitions of that country. Salmasius, however, attempts to prove, from the import of the name, that the *Osiris* of Egypt must have been the Bacchus of Greece. Σηρ, or Σηρ, he says, signifies a *son* in the Egyptian language; and hence he concludes, that the god was by that people called *Osiris*, for the same reason that by the Greeks he was called *Κουρως*, and by the Romans *Liber*. But this seems all to be a mistake. *Siris* makes a part of many Egyptian proper names, as *Bu-siris*, *Termo-siris*, *Tapo-siris*, &c. and is in all probability derived from the Hebrew word *Sar*, *Sur*, or *Sir*, which signifies a *prince*, *potentate*, or *grandee*. As the name of the god was in Egypt not *Osiris*, but *Isiris* or *Ysiris*, it was probably made up of *Sir* or *Siris*, and the Hebrew prefix *I* or *Isb*, denoting *strength*; so that the whole word will signify the *strong* or *mighty prince*. If so, we cannot doubt, as Diodorus Siculus, Eusebius, Sextus Empiricus, &c. all affirm, that the Egyptians worshipped the sun by the name of *Osiris*, but that by this name they meant the *power* or *governing mind* of the sun, as the Greeks and Romans seem to have done by their *Phæbus* and *Apollo*.

But though the original Osiris was undoubtedly the sun, or the intelligence actuating the sun, yet there is reason to believe that there was a *secondary Osiris*, who at a very early period reigned in Egypt, and was deified after his death for the benefits he had rendered to his country (see POLYTHEISM). This is indeed so generally admitted, as to have occasioned great controversies among the learned respecting the time when he flourished, and whether he was the civilizer of rude barbarians or the victorious sovereign of a polished nation. The illustrious Newton, it is well known, has adopted the latter opinion; and with much plausibility endeavoured to prove, that *Osiris* was the same with *Sesosthis* or *Serac*; but it must be confessed, that his conclusion is contrary to all the most authentic records of antiquity; and that it would be easy, by the same mode of arguing, to give a show of identity to two persons universally known to have flourished in very distant ages (A). The annals of Egypt, as may be seen in the writings of Herodotus, Diodorus Siculus, Strabo, Plutarch, and others, who copied from those annals, expressly asserted the distinct personality of *Osiris* and *Sesosthis*, and placed them in æras vastly distant from each other. *Osiris*, if any credit be due to those historians, was the founder of the Egyptian monarchy; and, as was customary in those days, having either received the name of the sun, or communicated

his own to that luminary, was after his death deified for the benefits which he had rendered to his country: and being at first worshipped only as a demigod, was in process of time advanced to full divinity, and confounded with his heavenly godfather. The Greeks, who, though original in nothing, were always prompted by their vanity to hold themselves out as the first of the nations, claimed this *Osiris* as their own, and pretended that he was the son of Jupiter and Niobe. He reigned, say they, over the Argives; but afterwards delivered his kingdom to his brother *Algialeus*, and took a voyage into Egypt, of which he made himself master, and married Io or Isis. He established good laws there; and they were both after their deaths worshipped as gods. That this is a ridiculous fiction needs no proof; since every one knows, that good laws were established in Egypt long before the Argives had any king, or indeed existed either as a tribe or nation.

OSMUNDA, MOONWORT; a genus of the order of filices, belonging to the cryptogamia class of plants. There are several species; the most remarkable of which is the regalis, osmund-royal, or flowering fern. This is a native of Britain, growing in putrid marshes. Its leaf is doubly winged, bearing bunches of flowers at the ends. The root boiled in water is very slimy; and is used in the north to stiffen linen instead of starch. Some of the leaves only bear flowers.

OSNABURG, a bishopric of Germany, situated in the centre of the circle of Westphalia, between the Weser and the Ems, having Minden on the east, Munster on the west, Diepholt on the north-east, and Ravensburg on the south-west. It is about 45 miles long and 25 broad, producing some rye, several sorts of turf, coals, marble, and good pasturage. The inhabitants, who are a mixture of Protestants and Roman Catholics, breed a considerable number of cattle, especially hogs, of which they make excellent bacon and hams; but a great part of the country consists of heaths. By the treaty concluded here in 1648, the bishopric was to be an alternative between the Roman Catholics and Lutherans; and the Lutheran bishop was to be a younger prince of the house of Brunswic Lunenburg, or, on failure thereof, of Brunswic Wolfenbüttele. In consequence of this settlement, it has been twice held by a British prince since the accession of the family of Hanover. The bishop is able to raise 2500 men, his revenue being between 20,000 and 30,000*l*. The chief manufactures of the country are a coarse kind of linen cloth and yarn, which are said to bring into it annually about 1,000,000 of rix dollars. There are also some woollen manufactures in Osnaburg and Bramsche. The land-estates of the bishopric are, the chapter, the knights, and the four towns. The diets are held at Osnaburg, when called together by the bishop. The count of Bar is hereditary seneschal or steward, and president of the college of knights. The bishop is a prince of the empire; and in the matricula is rated at 6 horse and 36 foot, or 216 florins monthly, in lieu of them.

(A) This has been in fact done by Warburton; who employs Newton's mode of reasoning with equal plausibility, and perhaps superior force, to prove the identity of King Arthur and William the Conqueror. See *Divine Legation of Moses*, Vol. III. Book iv. Sect. 5.

Osnaburg. them. To the chamber of the empire he contributes each term 81 rix-dollars, 14 kruiters and a half. The capital of this bishopric is

OSNABURG, or *Osnabruck*. It was formerly an imperial city, and one of the Hanse-towns; but is now subject to the bishop, though it still enjoys many privileges, and a revenue of about 8000 or 9000 rix-dollars. It has its name from a bridge over the river Hase, or Ose, which divides it into the Old and New Town, and stands 75 miles west of Hanover, and 30 north east of Munster, being surrounded with walls and ditches, but commanded by a mountain within cannon shot. It stands in a fine plain, and is adorned with several good buildings, and on the mountain there is an abbey. The magistracy of this city, which is re-chosen yearly on the 2d of January, is Lutheran; and the churches belong, some to the Lutherans, and some to the Papists. Both parties have the full and free exercise of their religion, whether the bishop be Protestant or Papist. The bishop's palace, called *Petersburg*, was built by Bishop Ernest-Augustus, brother to King George I. It is well fortified, and separated from the town by a bridge. It is a hexagon, with a court in the middle, and at each corner a turret. In the town-house are still preserved the pictures of the plenipotentiaries that assisted at the conferences there for the famous treaty of Westphalia. In the treasure of the cathedral are still to be seen some ornaments given by Charlemagne, as also his crown, which is only of silver gilt, and his comb and baton, six feet in length, both of ivory; together with other curiosities. Charlemagne is said to have erected here a school for Latin and Greek, which the Jesuits in 1625 converted into an academy. They have the best bread and beer that is to be met with in all Westphalia, and have a pretty good trade in bacon and linen; as also by brewing a palatable thick sort of beer called *buse*. This city is noted for a treaty betwixt the emperor and the king of Sweden in 1648, wherein the affairs of the Protestants were regulated, which was a branch of the treaty of Westphalia. The town, with the rest of the principality, is subject to its bishop, who is a count of the empire, and by the treaty of Westphalia must be alternately a Protestant and Papist. The Popish bishop is suffragan to the archbishop of Cologne; but the Protestant bishop is indeed a temporal prince, and always of the house of Brunswic, in consideration of the principality of Halberstadt, which was taken from this house, and conferred upon the elector of Brandenburg. Frederick duke of York, second son of his majesty George III. is the present bishop. The cathedral is in the hands of the Roman Catholics, with the church and monastery of the Dominicans in the old city, and the collegiate church of St John in the new. The Protestants are masters of the great parochial church of St Mary in the old city; and both religions have a voice in the election of the magistrates. Of 25 canons belonging to the cathedral, 18 are Roman Catholics, and the revenues of 4 more are enjoyed by the Jesuits for the support of their college; so that there are but 3 Protestant canons, who have no voice in the election of the Roman Catholic bishop, when it is his turn to succeed. The bishop's palace is fortified like a castle: here it was that George I. was born on the 28th of May 1660, his father Ernest-Augustus being

then bishop and prince of the place; and here also he died in the night of the 10th of June 1727, and, as some say, in the very room in which he was born. The bishopric is situated in the centre of the circle; the north part of it is marshy, but at the south extremity of it are some mountains. The inhabitants have considerable manufactures of linen, and a good breed of cattle; and of their hogs, for which they are remarkable, is made the best Westphalia bacon. Not far from this city are to be seen the ruins of an old church and castle, called *Beelem*, which some say was built by King Wittekind upon his conversion; and about two miles from it lies the monastery of Rulle, on the bank of a lake so deep, that report says it could never yet be fathomed. This was the first town in Westphalia which received the Lutheran doctrine.

OSNABURG Island, one of the islands in the South Sea, discovered by Captain Wallis in 1767. It is a high, round island, not above a league in circuit; in some parts covered with trees, in others a naked rock. S. Lat. 22. 48. W. Long. 141. 34.

OSORIUS (Jerom), was born of a noble family at Lisbon, 1500. He was educated at the university of Salamanca, and afterwards studied at Paris and Bologna. On his return to Portugal he gradually rose to the bishopric of Sylves, to which he was appointed by Catherine of Austria, regent of the kingdom in the minority of Sebastian. At the request of cardinal Henry of Portugal, he wrote his History of King Emanuel, and the Expedition of Gama; which his great-contemporary Camoens made at the same time the subject of his immortal *Lusiad*; a poem which has at length appeared with due lustre in our language, being translated with great spirit and elegance by Mr Mickle. It is remarkable that the history of Osorius, and the epic poem of Camoens, were published in the same year, 1572: but the fate of these two great authors were very different; the poet was suffered to perish in poverty, under the reign of that Henry who patronized the historian: yet allowing for the difference of their professions, they possessed a similarity of mind. There appear many traces of that high heroic spirit even in the priest Osorius, which animated the soldier Camoens: particularly in the pleasure with which he seems to describe the martial manners of his countrymen under the reign of Emanuel. "In that age (says the historian in the close of his manly work), poverty and sadness were banished from Portugal. Complaints were never heard; but every place, from the court to the cottage, resounded with mirth and music. Illicit love was unknown; nor would the ladies listen to the most honourable addresses of such youths as had not signalized themselves in war. No young man about court, however noble by birth, was permitted to wear the dress of manhood till he had passed over into Africa, and thence brought back with him some animal esteemed for its rarity; and such was the hardy education of the nobility in that age, that many of them travelled everywhere in quest of adventures." This is a striking picture of the manners of chivalry, to which Portugal owed much of its glory in that splendid period. There is one particular in the character of Osorius, which, considering his age and country, deserves the highest encomium; and that is his tolerating spirit. In the first book of his history, he

Osnaburg
Osorius.

Osorius

||
Offian

speaks of Emanuel's cruel persecution of the Jews in the following generous and exalted language: "This (says he) was authorised neither by law nor by religion. Can men be compelled to believe what they reject with abhorrence? Do you take upon you to restrain the liberty of the will, or to fetter the understanding? Such an attempt must be unsuccessful; and is not acceptable to Christ, who expects from man the devotion of the heart, and not that formal worship which is the offspring of pains and penalties. He wishes them to study his religion, and adopt it from conviction, not from terror: for who does not see that forced belief is mere hypocrisy?" Osorius is said to have used many arguments to dissuade Sebastian from his unfortunate expedition into Africa, and to have felt so deeply the miseries which befel the Portuguese after that fatal event, that his grief was supposed to accelerate his death. He expired in 1580, happy, says De Thou (who celebrates him as a model of Christian virtue), that he died just before the Spanish army entered Portugal, and thus escaped being a witness to the desolation of his country.—His various works were published at Rome in 1592, by his nephew Osorius, in four volumes folio, with a life of their author. Among these are two remarkable productions; the first, An Admonition to our Queen Elizabeth, exhorting her to return into the Church of Rome; the second, An Essay on Glory, written with such classical purity, as to give birth to a report, that it was not the composition of Osorius, but the last work of Cicero on that subject.

OSPNEY. See FALCO, sp. 17.

OSSA, a lofty mountain of Thessaly, near the Peneus, which runs between this mountain and Olympus; famous in the fabulous story of the giants (Homer, Virgil, Horace, Seneca, Ovid). The bending and unbending of its pines, on the blowing of a strong north wind, formed a clashing sound like thunder (Lucan). It was once the residence of the Centaurs, and was formerly joined to Mount Olympus; but Hercules, as some report, separated them, and made between them the celebrated valley of Tempe. This separation of the two mountains was more probably effected by an earthquake which happened about 1885 years before the Christian era. Its greatest celebrity arises from its being one of those mountains which the giants in their wars against the gods heaped up one on the other to scale the heavens with more facility. A town of Macedonia.

OSSAT (Arnauld de), born in the diocese of Auch in 1536, of mean parentage, was taken notice of by a gentleman in the diocese, who made him study with his ward the Lord of Castlenau de Magnoac. He studied the law at Dijon under Cujace, and applied himself to the bar at Paris. He was secretary at

Rome to M. de Foix, archbishop of Thoulouse; to cardinal Este; and afterwards to cardinal de Joyeuse, by the French king's express command. After rising to the highest dignities both in church and state, in 1599 he was created a cardinal by pope Clement VIII. He died in 1604. An eminent French writer gives him the following character: "He was a man of prodigious penetration; applied himself so closely to affairs, and especially was so judicious in forming his resolutions, that it is almost impossible to find out one false step in the many negotiations in which he was concerned." His works, and especially his letters, have been much esteemed in the learned world.

OSSIAN, the son of Fingal, a celebrated Celtic poet, who flourished about the end of the second and beginning of the third century. Several incidents in his poems point out this as his æra: particularly the engagement of Fingal with Caracul, or Caracalla, the son of the emperor Severus, styled by Offian, *The Son of the King of the World*. M. Tillemont fixes the elevation of Caracalla to a share in the government to the year 198, and the association of his brother Geta to 208. About which time Gibbon fixes the Caledonian war, and speaks thus upon the subject: "This Caledonian war, neither marked by decisive events, nor attended with any important consequences, would ill deserve our attention; but it is supposed, not without a considerable degree of probability, that the invasion of Severus is connected with the most shining period of the British history or fable. Fingal, whose fame, with that of his heroes and bards, has been revived in our language by a recent publication, is said to have commanded the Caledonians in that memorable juncture, to have eluded the power of Severus, and to have obtained a signal victory on the banks of the Carun, in which the son of *the King of the World*, Caracul, fled from his arms along the fields of his pride." * *Offian's Poems*, vol. i. p. 175. Something of a doubtful mist still hangs over these Highland traditions; nor can it be entirely dispelled by the most ingenious researches of modern criticism (A): but if we could with safety indulge the pleasing supposition, that Fingal lived, and that Offian sung, the striking contrast of the situation and manners of the contending nations might amuse a philosophic mind. The parallel would be little to the advantage of the more civilized people, if we compared the unrelenting revenge of Severus with the generous clemency of Fingal; the timid and brutal cruelty of Caracalla, with the bravery, the tenderness, the elegant genius of Offian; the mercenary chiefs who, from motives of fear or interest, served under the Imperial standard, with the free-born warriors who started to arms at the voice of the king of Morven: if, in a word, we contemplated the untutored Caledonians glowing

(A) "That the Caracul of Offian is the Caracalla of the Roman history, is perhaps the only point of British antiquity in which Mr Macpherson and Mr Whitaker are of the same opinion; and yet the opinion is not without difficulty. In the Caledonian war, the son of Severus was known only by the appellation of Antoninus; and it may seem strange, that the Highland bard should describe him by a nick-name, invented four years afterwards, scarcely used by the Romans till after the death of that emperor, and seldom employed by the most ancient historians. See Dion, l. lxxvii. p. 1317. Hist. August. p. 89. Aurel. Victor. Euseb. in Chron. ad ann. 214.

glowing with the warm virtues of nature, and the degenerate Romans polluted with the mean vices of wealth and slavery."

The date of this action, if the poems be true, is rather confounding: for the next expedition, which is produced to fix the time in which Ossian flourished, was conducted by Oscar (against the usurper Carausius, the Caros of Ossian), who did not assume the purple till so late as the year 287. This account indeed corresponds pretty well with the account given by Irish histories, which place the death of Fingal in the year 283, and that of Oscar (who died many years before his father Ossian) in the year 296. These hints are not thrown out because we think they militate against the authenticity of the poems; for distant though these dates be, it is yet possible to reconcile them. Old age was and is very common in those regions; and Ossian himself, we are told, was an instance of great longevity. Indeed at such a distance of time it cannot be expected that we should give either a very particular or a very exact account of Ossian and his heroes. Were there no doubts remaining of the truth of the facts, it is still natural to suppose that they must have suffered obscurity through the rust of time, and above all through the neglect of the poems, which till lately were unknown.

The first expedition on which Ossian's father sent him was, to raise a stone on the banks of Crona, to perpetuate the memory of a victory which the king of Morven had obtained at that place. The Highlanders talk of this as being emblematical of that immortality which heroes were to receive from his future compositions. In this expedition he was accompanied by Toscar, father of the beautiful Malvina, the amiable companion of his grief, after the death of her beloved Oscar, his son. It appears from his poems, that, in one of his early expeditions to Ireland, he had fallen in love with and married Eivirallin, daughter to Branno, petty king of Lego. "I went in suit of the maid of Lego's fable surge; twelve of my people were there, the sons of streamy Morven. We came to Branno, friend of strangers; Branno of the sounding mail.—'From whence (he said) are the arms of steel? Not easy to win is the maid that has denied the blue-eyed sons of Erin. But blest be thou, O son of Fingal! happy is the maid that waits thee. Though twelve daughters were mine, thine were the choice, thou son of fame.'—Then he opened the hall of the maid; the dark-haired Eivirallin *." This Eivirallin was the mother of his son Oscar, whose exploits he celebrates in many of his poems, and whose death he laments in the first book of Temora. Eivirallin died some time before Oscar (FINGAL, B. iv.), who seems to have been her only child; and Ossian did not marry afterwards: so that his posterity ended in the death of Oscar; who seems to have died as he was about to be married to Malvina, the daughter of Toscar. Several of her lamentations for her lover are recorded by Ossian, which paint her grief in the strongest and most beautiful colours. "It is the voice of my love! few are his visits to my dreams.—But thou dwellest in the soul of Malvina, son of mighty Ossian. My sighs arise with the beams of the east; my tears descend with the drops of night. I was a lovely tree in thy presence, Oscar, with all my branches round me: but

thy death came like a blast from the desert, and laid my green head low; the spring returned with its showers, but no green leaf of mine arose." Poem of CROMA.

The principal residence of Ossian was in the vale of Cona, now Glenco, in Argyleshire. See FINGAL.

His poems relate many of his expeditions to Ireland, Scandinavia, Clyde, and Tweed or Teutha. His exploits on these occasions, after making a large allowance for poetical exaggeration, show him to have been no less a warrior than a poet: (See OSSIAN'S WORKS, in the poems *Calthon and Colmal, Lathmon, Berrathon, &c.* By these expeditions, which were always undertaken for the relief of the distressed, the mind of Ossian seems to have been cultivated and enlarged beyond what is usually to be met with in so rude a period of society as that in which he lived. His poems breathe, throughout, such a spirit of generosity and tenderness, especially towards the fair sex, as is seldom or never to be met with in the compositions of other poets who lived in a more advanced state of civilisation. He lived to an extreme old age; having survived all his family and friends, many of whom perished by a fatal accident, recorded in one of his poems called the *fall of Tura* *. Malvina, alone, the love of his son Oscar, remained with him till within a few years of his death, and paid him every attention that could be expected from the tender relation in which she stood to him. To her he addresses many of his poems, which seem to have been composed for the most part in his old age. Her death is pathetically lamented by him in the poem of *Berrathon*: towards the close of which, he gives the presages of his own departure; an event which he often wishes for, under the blindness and other calamities of his declining years. "Roll on, ye dark-brown years, for ye bring no joy on your course. Let the tomb open to Ossian, for his strength has failed. The sons of the song are gone to rest: my voice remains, like a blast, that roars lonely, on the sea surrounded rock, after the winds are laid. The dark moss whistles there, and the distant mariner sees the waving trees†."—"But Ossian is a tree that is withered. Its branches are blasted and bare; no green leaf covers its boughs. From its trunk no young shoot is seen to spring. The breeze whistles in its grey moss: the blast shakes its head of age.—The storm will soon overturn it, and strew all its dry branches with thee, O Dermid! and with all the rest of the mighty dead, in the green winding vale of Cona‡."

It is not certain at what age Ossian died; but from his having been long blind with years, and from the many contrasts between his present and past situations, in poems composed, as it would appear, at a considerable distance of time from each other, it is most likely he lived to an extreme old age. The current tradition is, that he died in the house of a Culdee, called the *Son of Alpin*, with whom he is said to have held several conferences about the doctrines of Christianity. One of these dialogues is still preserved, and bears the genuine marks of a very remote antiquity; (*Dissertation* prefixed to *Ossian's Works*). Several of Ossian's poems are addressed to this son of Alpin, who was probably one of those Christians whom the persecution under Dioclesian had driven beyond the pale of the Roman empire.

The

* Fingal, B. iv.

* See *Galic Antiquities*.

† Poem of *Berrathon*.

‡ *Galic Antiquities*, poem of *Dermid*.

Ossian.

The poems of Ossian, though always held in the highest esteem by those who knew them, were allowed to remain in the obscurity of their original Gaelic, till Mr Macpherson, about 30 years ago, translated a collection of them into English, which immediately attracted the attention of every person who had a true taste for poetry. Dr Blair, in particular, introduced these poems into the world with those critical remarks which do no less honour to himself than to the poet. According to that eminent critic, the two great characteristics of Ossian's poetry are tenderness and sublimity. Ossian is, perhaps, the only poet who never relaxes, or lets himself down into the light and amusing strain. He moves perpetually in the high region of the grand and pathetic. The events which he records are all serious and grave; the scenery wild and romantic. We find not in him an imagination that sports itself, and dresses out gay trifles to please the fancy. His poetry, more perhaps than that of any other, deserves to be styled the *poetry of the heart*. It is a heart penetrated with noble sentiments, with sublime and tender passions; a heart that glows and kindles the fancy; a heart that is full, and pours itself forth. Of all the great poets, Homer is the one whose manner and whose times come the nearest to Ossian's. Homer's ideas were more enlarged, and his characters more diversified. Ossian's ideas fewer, but of the kind fittest for poetry; the bravery and generosity of heroes, the tenderness of lovers, and the attachment of friends. Homer is diffuse; Ossian abrupt and concise. His images are a blaze of lightning, which flash and vanish. Homer has more of impetuosity and fire; Ossian of a solemn and awful grandeur. In the pathetic, Homer has a great power; but Ossian exerts that power much oftener, and has the character of tenderness more deeply imprinted on his works. No poet knew better how to seize and melt the heart. With regard to dignity of sentiment, we must be surprised to find that the pre-eminence must clearly be given to the Celtic bard. This appears nowhere more remarkable than in the sentiments which he expresses towards his enemies. "Uthal fell beneath my sword, and the sons of Berrathon fled.—It was then I saw him in his beauty, and the tear hung in my eye. Thou art fallen, young tree, I said, with all thy beauty round thee. Thou art fallen on thy plains, and the field is bare. The winds come from the desert, and there is no sound in thy leaves! Lovely art thou in death, son of car-borne Lathmore†." His supposition, that all the little feuds and differences of this life should be forgot in a future state, and that those who had once been foes would "stretch their arms to the same shell in Loda," gives us the highest idea of the man as well as of the poet. "Daughter of beauty, thou art low! A strange shore receives thy corse. But the ghosts of Morven will open their halls when they see thee coming. Heroes around the feast of dim shells, in the midst of clouds, shall admire thee; and virgins shall touch the harp of mist‡."—"The feuds of other years by the mighty dead are forgotten. The warriors now meet in peace, and ride together on the tempest's wing. No clang of the shield, no noise of the spear, is heard in their peaceful dwellings. Side by side they sit, who once mixed in battle their steel. There, Lochlin and Morven meet at the

† Ossian's Works, poem of Berrathon.

‡ Gaelic Antiquities, poem of Trathal.

mutual feast, and listen together to the song of their bards§."

Ossian.

§ 1b. poem of Dargo.

But the sublimity of moral sentiments, if they wanted the softening of the tender, would be in hazard of giving a stiff air to poetry. It is not enough that we admire. Admiration is a cold feeling in comparison of that deep interest the heart takes in tender and pathetic scenes. With scenes of this kind Ossian abounds; and his high merit in these is incontestable. He may be blamed for drawing tears too often from our eyes; but that he has the power of commanding them, no man who has the least sensibility can question. His poems awake the tenderest sympathies, and inspire the most generous emotions. No reader can rise from him without being warmed with the sentiments of humanity, virtue, and honour.

But the excellency of these poems occasioned in many persons a doubt of their authenticity. Their genuineness, however, has been very ably defended by Dr Blair and Lord Kames, and warmly supported by the author of the *Gaelic Antiquities*, who has given the public some more remains of Ossian's poetry.

As the nature of our work will not allow us to treat this matter at full length, we shall only give a brief view of the arguments offered in support of the authenticity of these poems, referring our readers to the authors just now mentioned and others, for fuller satisfaction.

"In every period of society (says Dr Blair), human manners are a curious spectacle; and the most natural pictures of ancient manners are exhibited in the ancient poems of nations. These make us acquainted with the notions and feelings of our fellow-creatures in the most artless ages; discovering what objects they admired, and what pleasures they pursued, before those refinements of society had taken place, which enlarge indeed, and diversify the transactions, but disguise the manners of mankind.

"Besides this, ancient poems have another merit with persons of taste. They promise some of the highest beauties of poetical writing. That state, in which human nature shoots wild and free, though unfit for other improvements, certainly encourages the high exertions of fancy and passion.

"In the infancy of societies the passions of men have nothing to restrain them: their imagination has nothing to check it. And as their feelings are strong, so their language of itself assumes a poetical turn. Men never have used so many figures of style, as in those rude ages, when, besides a warm imagination to suggest lively images, the want of proper and precise terms for the ideas they would express, obliged them to have recourse to circumlocution, metaphor, comparison, and all those substituted forms of expression, which give a poetical air to language. An American chief, at this day, harangues at the head of his tribe in a more bold metaphorical style than a modern European would adventure to use in an epic poem.

"Poetry has been said to be more ancient than prose, which, in a qualified sense, is true. Music or song has been found coeval with society among the most barbarous nations; and the only subjects which could prompt men, in their first rude state, to utter their thoughts in compositions of any length, were such as

naturally

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naturally assumed the tone of poetry; praises of their gods, or of their ancestors; commemorations of their own warlike exploits; or lamentations over their misfortunes. And before writing was invented, no other compositions, except songs or poems, could take such hold of the imagination and memory, as to be preserved by oral tradition, and handed down from one race to another.

"Hence we may expect to find poems among the antiquities of all nations. It is probable, too, that an extensive search would discover a certain degree of resemblance among all the most ancient poetical productions, from whatever country they have proceeded. In a similar state of manners, similar objects and passions operating upon the imaginations of men will stamp their productions with the same general character. Some diversity will, no doubt, be occasioned by climate and genius. But mankind never bear such resembling features as they do in the beginnings of society. What we call the *oriental vein* of poetry, because the earliest poetical productions have come to us from the east, is probably no more *oriental* than *occidental*; it is characteristic of an age rather than a country; and belongs, in some measure, to all nations at a certain period. Of this the works of Ossian seem to furnish a remarkable proof.

"He appears clearly to have lived in a period which enjoyed all the benefit I have just now mentioned of traditionary poetry. The exploits of Trathal, Trenmor, and the other ancestors of Fingal, are spoken of as familiarly known. Ancient bards are frequently alluded to. In one remarkable passage, Ossian describes himself as living in a sort of classical age, enlightened by the memorials of former times, conveyed in the songs of bards, and points at a period of ignorance which lay beyond the reach of tradition. Ossian himself appears to have been endowed by nature with exquisite sensibility; prone to that tender melancholy which is so often an attendant on great genius; and susceptible equally of strong and of soft emotions. He was not only a professed bard, but a warrior also, and the son of the most renowned hero and prince of his age. This formed a conjunction of circumstances, uncommonly favourable towards exalting the imagination of a poet.

"The manners of Ossian's age were favourable to a poetical genius. Covetousness and effeminacy were unknown. The cares of men were few. The great object pursued by heroic spirits, was, 'to receive their fame,' that is, to become worthy of being celebrated in the songs of bards; and 'to have their names on the four grey stones.' To die unlamented by a bard, was deemed so great a misfortune as even to disturb their ghosts in another state. In such times as these, in a country where poetry had been so long cultivated, and so highly honoured, is it any wonder that among the race and succession of bards, one Homer should arise: a man who, endowed with a natural happy genius favoured by peculiar advantages of birth and condition: and meeting in the course of his life, with a variety of incidents proper to fire his imagination, and to touch his heart, should attain a degree of eminence in poetry, worthy to draw the admiration of more refined ages?"

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Besides, his compositions, when viewed in themselves, have, we are told, all the internal marks of antiquity so strongly impressed upon them, that no reader of taste and judgment can deny their claim to it. They exhibit so lively a picture of customs which have disappeared for ages, as could be drawn only from nature and real life. The features are so distinct, that few portraits of the life continually passing before us are found to be drawn with so much likeness. The manners uniformly relate to a very early stage of society; and no hint, no allusion to the arts, customs, or manners, of a more advanced period, appears throughout the poems. To that distinction of ranks, which is always found in adult societies, the poet appears to have been a perfect stranger. The first heroes prepare their own repasts, and indiscriminately condescend to the most menial services. Their quarrels arise from causes generally slight, but in such a period extremely natural. A rivalry in love, an omission at a feast, or an affront at a tournament, are often the foundation of a quarrel among single heroes. And the wars in which whole tribes are engaged, are carried on with a view, not to enlarge their territory, but to revenge perhaps the killing of a few deer on their mountains, or the taking forcibly away one of their women. Their occupation was war and hunting; and their chief ambition was to have their fame in the songs of the bards.

The notions of a future state, exhibited in these poems, are likewise strongly marked with the character of antiquity. A creed so uncommon that the imagination of a modern could not be supposed to grasp so strong an idea of it from mere fancy, is uniformly supported throughout. This creed is extremely simple, but admirably suited to the times.

The language too, and the structure, of these poems, bear the most striking characters of antiquity. The language is bold, animated, and metaphorical, such as it is found to be in all infant-states; where the words, as well as the ideas and objects, must be few; and where the language, like the imagination, is strong and undisciplined. No abstract, and few general, terms appear in the poems of Ossian. If objects are but introduced in a simile, they are always particularized. It is "the young pine of Inishuna:" it is "the bow of the showery Lena." This character, so conspicuous in the poems of Ossian, is a striking feature in the language of all early states; whose objects and ideas are few and particular, and whose ordinary conversation is of course highly figurative and poetical. A picture, therefore, marked with such striking features, could not be drawn without an original.

The whole texture of the composition is also, like the language, bold, nervous, and concise; yet always plain and artless; without any thing of that modern refinement, or elaborate decoration, which attend the advancement of literature. No foreign ornaments are hunted after. The wild and grand nature which lay within the poet's view, is the only source from which he draws his ornaments. Beyond this circle, his imagination, though quick and rapid, seldom made any excursion. We perceive his language always to be that of a person who saw and felt what he describes; who bore a part in the expeditions which he celebrates.

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brates, and who fought in the battles which he sings. Such is the nature of the internal proof adduced in the present case, which unquestionably has weight, and that not inconsiderable; but unsupported by external proof, or contrary to facts, however forcible it may be in itself, when considered in this connection, and found wanting, it will neither silence the querulous sceptic, nor, in all probability, will it ever convince those who have truth for their object, and who wish to investigate, and, if possible, discover it on surer grounds. Internal proof is of the greatest service in a variety of excellent causes; but it comes in rather as a succedaneum than as direct evidence; and without something more to the purpose, it may excite admiration, but will seldom enforce belief. Of the customs and manners of ancient times, we know but little, and of that little we have often but a confused notion. There is therefore room for genius and ability to exert itself in deceiving; and in proportion to the darkness in which the subject is involved, the deception will generally be the more complete, and the secret windings of error less easy to be developed.

Destitute of external proof, authenticity may appear to be probable, but cannot be certain; and in such circumstances, on many occasions, and especially with respect to ancient writings, we may, without any offence to truth or to sound reasoning, give them up as spurious. In the present instance, therefore, it is just and proper to add to what has been already said, the more external and positive proofs of the authenticity of the poems in question, by the strength or weakness of which the subject must be finally determined. It is observed, therefore,—That there have been in the Highlands of Scotland, for some ages back, a vast many poems ascribed to Ossian: That these poems have been held in the highest veneration, repeated by almost all persons, and on all occasions. These are facts so well known, that nobody as yet has been hardy enough to deny them. There is not an old man in the Highlands, who will not declare, that he heard such poems repeated by his father and grandfather, as pieces of the most remote antiquity. There is not a district in the Highlands where there are not many places, waters, isles, caves, and mountains, which from time immemorial are called after the names of Ossian's heroes.—There is not a lover of ancient tale or poetry, however illiterate, who is not well acquainted with almost every single name, character, and incident, mentioned in those translations of Ossian's poems, which he may have never heard of.—Bards, who are themselves several centuries old, quote those poems, imitate them, and refer to them.—The ordinary conversation and comparisons of the Highlanders frequently allude to the customs and characters mentioned in them;—and many of their most common proverbs, established by the most ancient use, are lines borrowed from the poems of Ossian.*—The most ancient of the clans boast of deriving their pedigree, each from some one of Ossian's heroes;—and many of the signs armorial assumed by them, are drawn from the feats ascribed to their predecessor's in those poems†.—Manuscripts are mentioned, in which some of those have been preserved for several centuries‡; and a list of living names, in different parts of the

* See examples under each of these heads in the *Galic Antiquities*, p. 93. 94. 95.
† *Ibid.* p. 194. in note.
‡ *Kames's Sketches*, B. i.

Highlands, is appealed to, as persons who still repeat a part of these poems ||.—Whilst Mr Macpherson was engaged in the translation, many respectable persons, gentlemen and clergymen, avowed to the public, that these were Ossian's poems, with which they had long been acquainted, and that the translation was literal. This appears also from the large specimens of the originals published and compared by proper judges. The originals lay a considerable time in the hands of the bookseller, for the inspection of the curious; they have been afterwards shown frequently to many of the best judges, and offered for publication if the editor had been favoured with subscriptions. The editor of the pamphlet, in which their authenticity is attested by many respectable names of undoubted veracity, observes, by way of conclusion, "that more testimonies might have been produced by a more enlarged correspondence with the Highland counties: But I apprehend, if any apology is necessary, it is for producing so many names in a question where the consenting silence of a whole country was, to every unprejudiced person, the strongest proof that spurious compositions, in the name of that country, had not been obtruded upon the world." It is likewise argued in support of the authenticity of these poems, that candid sceptics, on hearing some of them repeated by illiterate persons, who had never seen the translation, caused them to give the meaning of what they repeated, by an extempore translation into English, and by this means had all their doubts of the authenticity of Ossian removed*. They urge further, that such passages of Ossian's works as are still repeated by some old men, are among the most beautiful parts of Ossian's poems; such as the battle of Lora, the most affecting parts of Carthon, Berrathon, the death of Oscar, and Darthula, or the children of Usnoth, &c.: which gives a credibility to his being equal to the other parts of the collection, none of it being superior to these in merit.

To these and the like arguments advanced in support of the authenticity of the poems ascribed to Ossian, many objections have been urged. Those of Johnson and his friend Shaw are universally known. A later writer objects to them in the following manner: No fragments of British poetry in Scotland are to be found. Many specimens of Irish poetry in Scotland have been published; but none older than a century or two. Translations have also appeared; but, in general, of no fidelity. Those of the poems ascribed to Ossian, in particular, have deservedly drawn much of the public attention; but they will only mislead any reader who wishes to form an idea of Celtic poetry. He that believes Ossian to have flourished about the year 300, and his writings preserved by oral tradition for 1460 years, large is his faith, and he might move mountains! Gentlemen of the Highlands of Scotland, with whom our author conversed on the subject, assured him, that they looked upon nine-tenths of Mr Macpherson's work as his own; and upon the other tenth, as so much changed by him, that all might be regarded as his own composition. There are positive evidences, he says, which convince him that not one of the poems given to Ossian, and probably not one passage of them, is older than the 15th century.

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Galic Antiquities, p. 95. 128.

§ See list of names, Appendix to Dr Blair's Dissertation, *Ossian's Works*, 2d edit.

* Pref. to Dr Percy's *Reliques of Old English Poetry*, 1st edit.

Pinkerton.

Offian. century. The very first author we know who mentions Fingal is Barbour, a Scotch poet, who wrote in 1375. Fingal was an Irish hero: and one Good, a schoolmaster of Limeric, sent some account of Ireland to Camden, in 1566, in which mention is made of some strange fables, that the people amuse themselves with, about the "giants *Fin Mac Huyle*, and *Otker Mac Oshin*," of which we shall speak more largely presently. In the mean time, to these, and such like objections, it has been answered, That poetry has been cultivated with most success in the earliest stages of society; that in Greece, Orpheus, Linus, Hesiod, and Homer, wrote their admirable poems some ages before any thing had been written in prose in the Greek language; that the book of Job, written in a very early period of society, is highly poetical; that among the tribes of Lapland and America, there have been found, in the earliest state, some excellent pieces of poetry. That the Caledonians, in particular, had some peculiar institutions, which tended to improve their poetry: their druids were among the most learned philosophers which perhaps any age or country produced; their bards or poets were the disciples of those druids, and were always a standing order, to which none but the most promising geniuses were admitted. This standing college of poets was furnished, not only with the fruits of their own long study and observation, but also with as much as merited to be preserved of the compositions of their predecessors in office, since the "light of the song" first dawned. They had the advantage of one another's conversation; which would excite their emulation, and make them aspire to eminence: They were always present, and generally engaged, in every grand operation that was transacted; which could not fail to inspire their muse with the truest poetic fire.

The case of *Offian* was particularly favourable. He lived in an age when manners came to a considerable degree of refinement under the care of the bards and druids. Poetry in his day was considerably advanced; and the language, though strong and figurative, had undergone some degree of cultivation, and learned to flow in regular numbers, adapted to the harp, the favourite instrument of the times. As a prince and a warrior, his mind must have been expanded and much enlarged by his excursions to other countries. At home he had Ullin, Alpin, Carril, and Ryno, to converse with; all of them poets of eminence, who would have advanced him greatly by their example and conversation. All these advantages, meeting with a native fire and enthusiasm of genius, as in the case of *Offian*, may well be supposed to have produced poems that might challenge the veneration of ages.

But it is not to their merit alone that we owe the preservation of these poems so long by oral tradition. Other circumstances concurred; of which, the institution of the *BARDS* deserves particular notice. In a country, the only one perhaps in the world in which there was always, from the earliest period almost to the present age, a standing order of poets, we cannot reasonably be surprised, either at finding excellent poems composed, or, after being composed, carefully preserved from oblivion. A great part of the business of this order was to watch over the poems of *Offian*. In every family of distinction there was

Offian. always one principal bard, and a number of disciples, who vied with each other in having these poems in the greatest perfection. Should the institution of the bards last for ever, the poems of *Offian* could never perish.

Nor were they only the bards of great families who took an interest in these poems; the vassal, equally fond of the song with his superior, entertained himself in the same manner. This, with a life free from care, a spirit unbroken by labour, and a space of time unoccupied by any other employment or diversion, contributed to render the Highlanders a nation of singers and poets. From such a people, the superior merit of *Offian's* poems would naturally procure every encouragement, which they always retained as long as the manners of the people remained unchanged.

Many other reasons conspired to preserve the poems of *Offian*. The martial and intrepid spirit which they breathed, made it the interest of the chieftains to preserve them: the strain of justice, generosity, and humanity, which runs through them, recommended them to the superintendants of religion, who well knew how much the morals of a people must be tinged with those songs which they are continually repeating, and which have all the advantages of poetry and of music. In superstitious ages, the people revered these poems, from their being addressed generally to some "son of the rock," supposed to be the tutelary saint of the place, or the great Irish apostle St Patrick. Besides, every hill and dale which the natives of the Highlands walked over, was classic ground. Every mountain, rock, and river, was immortalised in the song. This song would naturally be suggested by the sight of these objects, and every body would hum it as he walked along. All the proverbs and customs to which these poems gave rise, would operate in the same manner. The son would ask what they meant, and the father would repeat the song from which they were taken. The distinct and unsubdued state in which the Highlanders remained for so long a course of ages, every clan, one generation after another, inhabiting the same valley, till towards the present century, contributed much to preserve their traditions and their poems; and the constant and general custom of repeating these in the winter-nights, kept them always alive in their remembrance.

To these causes and customs the preservation of *Offian's* poems, for so many ages, has been ascribed. But these causes and customs have ceased to exist; and the poems of *Offian*, of course, have ceased to be repeated.—Within a century back, the Highlands of Scotland have undergone a greater revolution than it had done for ten before that period. With a quicker pace the feudal system vanished; property fluctuated; new laws and new customs stepped in, and supplanted the old: and all this, with such sudden and such violent convulsions, as may well account for the shaking of a fabric which had stood so many ages, that it seemed to have bidden defiance to all the injuries of time. Even since Mr Macpherson gathered the poems in his collection, the amusements, employments, and taste of the Highlanders are much altered. A greater attention to commerce, agriculture, and pasturage, has quite engrossed that partial attention which was paid,

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even then, to the song of the bard. In twenty years hence, if manners continue to change so fast as they do at present, the faintest traces will scarce be found of those tales and poems. "Ossian himself is the last of his race; and he too shall soon be no more, for his grey branches are already strewed on all the winds."

Among the causes which make these poems vanish so rapidly, poverty and the iron rod should come in for a large share. From the baneful shade of those *murderers of the muse*, the light of the song must fast retire. No other reason needs be given why the present Highlanders neglect so much the songs of their fathers.—Once, the humble, but happy vassal, sat at his ease, at the foot of his grey rock or green tree. Few were his wants, and fewer still his cares; for he beheld his herds sporting around him, on his then unmeasured mountain. He hummed the careless song, and tuned his harp with joy, while his soul in silence blessed his children.—Now, we were going to draw the comparison:

—*sed Cynthia aurem
Vellit et admonuit.*

It is more agreeable to remark, as another cause for the neglect of ancient poems and traditions, the growth of industry, which fills up all the blanks of time to more advantage, and especially the increase of more useful knowledge.—But above all, the extinction of the order of the bards hastened the catastrophe of Ossian's poems. By a happy coincidence Macpherson overtook the very last that remained of this order, (Macvurich, bard to Clanronald), and got his treasure. This fact (with the *red book* furnished by Mr Macdonald of Croidart, and some other MSS.) accounts for Mr Macpherson's having found these poems in greater number and perfection than they could ever since be met with. The fragments, however, which have since been gathered, give a credibility to every thing that has been said of the original grandeur of the building.

Although this disquisition has already extended to a length which readers not partial to Scottish antiquities will perhaps think too great, we cannot dismiss it without observing, that Fingal and Ossian have been claimed by the Irish as well as by the Caledonians. On this double claim, as well as on the controversy concerning the authenticity of the poems, there is so much candour and good sense in the following remarks of T. F. Hill, published in the 53d volume of the *Gentleman's Magazine*, that we cannot deny ourselves the pleasure of making them conclude the article.

Mr Hill travelled through the Highlands of Scotland during the summer months of 1780. He seems to have been very ardent in his inquiries concerning Ossian, and to have conducted those inquiries with great judgment. The consequence was, that he received different accounts in different places, and picked up various songs relating to Fingal and his heroes.

"From this collection, it is evident (he says) that there are many traditional songs preserved in the Highlands relating to Fingal and his heroes, as well as to several other subjects. It is also evident, that these

songs contain portions of the very poems published by Mr Macpherson and Mr Smith, under the name of *Ossian*. We may therefore justly conclude, that those poems are not wholly the forgery of their editors, but compiled at least from original songs. I by no means think it worth my while to notice the various concessions in favour of this conclusion, which the minor antagonists of Ossian have of late been forced to make. I myself have given proofs of it; which need I hope no external confirmation. To these proofs might be added, that I met with many traditional preservers of these songs, in every different part of the Highlands: some of whom, especially in Argyleshire, Lochaber, and on the rest of the western coast, were said to possess various poems attributed to Ossian, although I had neither leisure nor opportunity to collect copies from them.—But enough has already been said on this subject, if my testimony deserves regard.

"These principles being established, it remains to be considered how far the poems published by Macpherson and Smith deserve to be considered as the works of Ossian.

"The songs attributed to that bard, which contain passages of the Ossian of Macpherson and Smith, are by no means uniformly consistent with the poems in which the parallel passages are found, but frequently relate to different events, and even contain different circumstances. From hence it seems most probable, that Mr Macpherson and Mr Smith compiled their publications from those parts of the Highland songs which they most approved, combining them into such forms as according to their ideas were most excellent, and preserving the old names and the leading events. In this process they were supported and encouraged by the variety of songs preserved in the Highlands upon the same subject, and by the various modes in which the same event is related. Mr Macpherson may indeed have MSS. of all the poems he has published; which MSS. may either have been compiled by himself, or by some former collector; or they may possibly contain entire poems really ancient. But Mr Smith has honestly acknowledged, that he himself compiled his Ossian in the manner above described. 'After the materials were collected (says he), the next labour was to compare the different editions; to strike off several parts that were manifestly spurious; to bring together some episodes that appeared to have a relation to one another, though repeated separately; and restore to their proper places some incidents that seemed to have run from one poem into another:—and hence it was unavoidably necessary to throw in sometimes a few lines or sentences to join some of the episodes together.—I am sensible that the form of these poems is considerably altered from what is found in any one of the editions from which they are compiled. They have assumed somewhat more of the appearance of regularity and art—than that bold and irregular manner in which they are originally delivered.'

"Mr Smith also speaks of the Ossian of Mr Macpherson in a somewhat similar manner: 'That we have not the whole of the poems of Ossian, or even of the collection translated by Mr Macpherson, we allow: yet still we have many of them, and of almost all a

part. The building is not entire, but we have still the grand ruins of it.

"What portion, therefore, of the Ossian of Macpherson and Smith is original, no man can determine except themselves. Smith indeed says, that he has mentioned all his *material* alterations, transpositions, and additions, in his notes; and that, *for the most part*, he was guided in them by the Sgeulachds, or traditional tales accompanying the songs; but there are few such notes in his book, and perhaps as few *such* Sgeulachds in the mouths of the Highlanders. In Macpherson and Smith also we see these poems divested of their idiomatic peculiarities and fabulous ornaments; which renders it impossible to discover what manners and opinions are really ancient, and what are of modern invention. Yet it is remarkable, that in spite of all the objections to their authenticity, necessarily produced by such a treatment of them, they still possess an internal evidence of originality which has enabled them hitherto to withstand all the torrent of opposition.

"The Ossian of Macpherson and Smith appears therefore to be a mutilated work, even though we should suppose that the songs they originally compiled from were the undoubted works of that celebrated bard. But this is far from being the case; for even allowing that an Ossian ever existed and wrote, yet time must have introduced such material changes in his works, if preserved merely by tradition during so long a period, that their own author would hardly know them again. I think it however doubtful, whether such a being as Ossian ever appeared in the world.

"All the songs which I met with in the Highlands relative to the Feinne or Fingalians were attributed to Ossian: his name seems merely a common title, which is ascribed to all the poetic annals of his race.

"From these considerations, we seem authorised finally to conclude, that the Ossian of Macpherson and Smith is a mutilated compilation from Highland songs, ascribed indeed to that bard, yet very little likely to be his composition. Out of these they selected the best parts, and rejected such as they thought might discredit the character of Highland antiquity; attributing them to later times, and the ignorant bards of the fifteenth century. Perhaps even the works of Homer himself, which had so many different editions, very considerably varying from each other, were compiled by a somewhat similar process from the ancient Greek songs.

"Another question remains to be considered: Whether these songs are the compositions of the Highlands or of Ireland? and, Whether Ossian was an Irish or a Caledonian Scot? It is my opinion, that the songs in this collection evidently manifest a connection with Ireland, though their traditional preservation in Scotland has sometimes introduced the name of Scotland in its stead. One of their principal personages is St Patrick, the peculiar apostle of Ireland, which alone seems sufficient to mark their origin (A). If there-

fore we may reason from a part to the whole, it is just to conclude, that all the other songs preserved in the Highlands relative to the Fingalians are also Irish. They are wholly confined to the western coast of the Highlands, opposite Ireland; and the very traditions of the country themselves acknowledge the Fingalians to be originally Irish. The genealogy of Fingal was there given me as follows: Fion Mac Coul, Mac Trathal, Mac Arshat Riogh Erin, or king of Ireland; thus attributing the origin of his race to the Irish. I am inclined to believe that these notions about Fingal were common to the Scots in the most ancient times, and brought by them from Ireland to Scotland, the hereditary superstition of both races; for, notwithstanding it may appear most probable that Ireland should receive colonies from Scotland than the contrary, we have direct historic evidences that Scotland received them from Ireland; and no bare theoretic probability deserves to be opposed to the positive assertions of history.

"With regard to the Erse manuscripts, about which so much has been said, it becomes me to acknowledge, that I have never seen enough of them to give any decided opinion: those which I have seen induce me to think they principally owe their existence to Ireland.

"I shall not repeat what others have said to prove the Fingalians Irish; though the connection of Fingal with Ireland has been already warmly asserted.

"But an unnoticed though curious passage in Camden affords us the most remarkable, and perhaps the most convincing, proof that Fingal is an Irish hero, which demonstrates at least that he was indisputably claimed by the Irish 200 years ago. It is contained in an extract (already mentioned) made by Camden, from an account of the manners of the native Irish, written by one Good, a schoolmaster at Limerick, in 1566. 'They think,' says he, speaking of Ireland and its inhabitants, 'the souls of the deceased are in communion with famous men of those places, of whom they retain many stories and sonnets; as of the giants Fin-Mac-Huyle, Osker-Mac-Ofshin, or Ofshin-Mac-Owim; and they say, through illusion, that they often see them.'

"The very material importance of this curious passage, with relation to the present subject, it is unnecessary to urge; for every eye must see it. We also obtain from it new information in respect to the last part of the history of Fingal and his heroes; as it enables us to determine who they were, with a precision which must otherwise have been wanting, to complete these remarks on the Highland songs.

"The singular agreement of this passage with the accounts of Ossian which were taught me in Scotland is worthy particular remark; it confirms them even in the most novel and peculiar instances. The Fingalians were generally represented as giants; but the most remarkable concurrence is in the mythologic character attributed by both to Fingal, Osker, and Ossian.

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(A) "The Scots indeed lay claim to the birth of St Patrick, and boast also his burial-place. Camden, edit. Gibson, 1695, pp. 921, 1014. And so also do the Britons, *ib.* p. 631, 1014; but his life and miracles all agree to attribute to Ireland. In Gough's edition of Camden, the account of St Patrick is in vol. iii. p. 612, 618. See PATRICK (St).

Ossian.

In proof of this, I have to observe, that Mac Nab described Fingal as the Odin of the Scots, and that a song called *Urnigh Ossian* evidently speaks of him as such. This curious passage represents him exactly in the same character; a hero with whom the spirits of the deceased are in communion, who is their chieftain, and the lord of their feasts. The gods of all the northern nations seem to have been of this class; mighty heroes, esteemed once to have been invincible on earth, though perhaps not ever strictly men, nor yet constantly regarded as giants. Such are Odin, Thor, and the other Teutonic gods; such are Fingal, Oscar, and the rest of the Fingalians among the ancient Scots; such also are Hercules, Bacchus, and even Jupiter himself, with all his sons and daughters, among the original Greeks, a people who agreed in many particulars with our own ancestors in northern Europe. The notions entertained about ghosts, as an intermediate order of beings between men and divinities, endowed with some share of power to do evil, is also remarkably congruous with this mythology.

“As Fingal was a divine hero, so Ossian seems to have been a divine bard. Some of the gods of the Teutons were bards in like manner: the god Niord and his wife Skada quarrelled in elegant verse of their own composition; and Odin is the relator of his own Edda. Apollo, the poetic deity of Greece, likewise sung the history of his fellow-deities to men on earth, as well as Orpheus his son. The bards and traditional preservers of songs in Scotland and Ireland have ever been fond of ascribing all ancient poems to this Ossian, and especially those relating to his own race; and from this cause the poems ascribed to Ossian are become so voluminous. The ancient Egyptians had a similar custom of ascribing their works to Hermes: *οι ημετεροι παρονομι τα αυτων της σοφιας ευρηματα αυτω ανεπιθεσιν ιερου παντα τα οικεια συγγραμματα επωνομαζοντες*, says Jamblichus, S. I. c. 1. which rendered the Hermetic writings equally voluminous. The Egyptians, who possessed the art of writing, deposited their works in the adyta of their temples; as the Arabians deposited their poems of old in the temple of Mecca: but because the Egyptians affixed to them no author's name, except that of Hermes, to him, as to the Scottish Ossian, almost all the national literature was attributed by religious flattery.

“I sincerely wish, that some gentleman possessed of adequate abilities and acquaintance with the Erse language, would undertake to collect these Ossianic songs in their simple original state; as they undoubtedly contain much curious knowledge, accumulated in the various ages through which they have descended to us, and would probably afford much new information on subjects at present very ill understood. I own, however, that I should rather choose to seek for them in Ireland than in Scotland; but neither country should be unexplored.

“After having thus freely, though I hope not uncandidly, delivered my sentiments on the Ossian of Mr Macpherson, it becomes me to acknowledge myself deeply indebted to it for the pleasure in perusal it has frequently afforded me. I am willing, and indeed happy, thus publicly to declare myself a warm admirer of it as a literary composition. The novelty of its manner, of its ideas, and of the objects it describes,

added to the strength and brilliancy of genius which frequently appears in it, have enabled me to read it with more delight, and to return to it more frequently, than almost any other work of modern times. And let it be regarded in what light it may, the praise of elegant selection and composition certainly belongs to its editor. If I had not entertained these opinions of its merit, I should never have taken so much pains to investigate its authenticity; nor indeed can I believe, if the general opinion had not concurred with mine, that the world would ever have wasted so much time in disputing about it.”

OSSIFICATION, in the animal œconomy, the formation of the bones, but more particularly the conversion of parts naturally soft to the hardness and consistency of bones. Bones, Dr Drake contends, are formed out of the most comminute or broken parts of the blood; since we see that the blood of old men, which by a long course of circulation becomes in a manner unfit for the common office of nutrition, will however ossify, and convert into bones, many of the tendons and ligaments, and even the coats of the vessels themselves, whose substance being next to the bones the most compact, admits only of the smallest particles of the blood, which therefore soonest become osseous, as they are frequently found. Dr Nesbit's opinion of ossification is, that in the blood, or a fluid secreted from it, there is an ossifying juice, having particles which are not apparent: that whenever nature designs an ossification between membranes, or within a cartilage, she occasions a more than usual afflux of this fluid; which so much distends the vessels which were before invisible, as to make them capable of receiving the red globules of blood, which is always to be seen near to the place where ossification is begun. In this blood, gritty bony particles may be felt by the point of a knife, which have been formed by the attraction and cohesion of the particles of the ossifying juice obstructed, along with the other grosser fluids, in the beginning of the vessels prepared to receive reflux juices. The blood being capable of forming fine membranes, the membranous parts of a bone, which act as a gluten to keep these particles and fibres together, if there be any such, that do not arise from the coats of its vessels, are produced by a cohesion round the cretaceous particles of a part of the fluid, in which they were generated and contained. Thus the membranes of cartilages serve as a bed between or within which the bony particles are deposited, or shoot; but without any intermixture of the particles of the bone and cartilage, or continuation of the fibres of the one substance to those of the other, as is evident in cartilages containing bones kept long enough in water, and then slit; for the bone will, as soon as the large vessels that enter its substance are divided, slip as easily, and perhaps easier, from it than an acorn does out of its cup: and there is a smoothness and polish of the parts of both cartilage and bone, which show there is no conjunction of the fibres of the two substances. While the bones are increasing within cartilages, the cartilages are extended and spread out; by which, with the pressure which they suffer, and the great influx of various fluids, and the nutritious matter being hindered to flow freely into them, they decrease continually, and at last may truly be said to be entirely destroyed. Dr Buddeus endeavours to prove,

Ostium prove, that the preternatural ossifications, which are commonly said to be formed in different parts of the body, do not deserve that name; for that these hard substances have scarce any other properties of bone except whiteness and hardness.

OSSIFRAGUM, in botany, a name given by Bartholinus, and some other writers, to a kind of grass which grows in some parts of Norway. It comes up early in the spring, before any other grass, and the cattle are tempted to eat it; but it emaciates them, and renders them sickly: their back bones become protuberant if they feed on it for any time; and their legs so weak that they can hardly go. The remedy among the country people, which is a very curious one, is this: They collect the bones of different animals, and break them into small pieces. The cattle greedily devour this sort of food when offered them in this disease, and there follows a sort of drivelling at the mouth for a considerable time, after which they become perfectly well. It is possible there may be much absurdity in this story. The kingdom of Norway is full of mines, and the effluvia of these may be the occasion of the cattle's illness, and the ceasing of these effluvia their cure; for it is not probable that either of these effects should be owing to the grass or the bones.

OSSORY, the west division of Queen's-county in Ireland.

OSSORY (Bale bishop of). See **BALE**.

OSSUNA, an ancient and considerable town of Andalusia in Spain, with an university, an hospital, and the title of a duchy. N. Lat. 37. 8. W. Long. 4. 18.

OSTADE (Adrian Van), an eminent Dutch painter born at Lubec in 1610. He was a disciple of Francis Hals, in whose school Brouwer was cotemporary with him, where they contracted an intimate friendship. The subjects of his pencil were always of a low kind, he having nearly the same ideas as Teniers; diverting himself with clowns and drunkards in stables, ale-houses, and kitchens. His pictures are so transparent and highly finished, that they have the polish and lustre of enamel: they have frequently a force superior to Teniers; yet it were to be wished that he had not designed his figures so short. He is perhaps one of the Dutch masters who best understood the *chiaro oscuro*; and he was often employed to paint figures for the best landscape-painters of his countrymen. He died in 1685. His works, especially those of his best time and manner, are very scarce; so that when they are to be purchased, no price is thought too much for them. His prints etched by himself, large and small, consist of 54 pieces.

OSTALRIC, a town of Spain, in Catalonia. It had a strong castle, but was taken by the French and demolished in 1695. It is seated on the river Tordera, in E. Long. 2. 45. N. Lat. 24. 44.

OSTEND, a very strong sea-port town of the Netherlands, in Austrian Flanders, with a good harbour and a magnificent town-house. It is not very large, but it is well fortified. It was much more considerable before the long siege of the Spaniards, which continued from 1601 to 1604, when it was almost entirely reduced to ashes. The Dutch lost 50,000 men, and the Spaniards 80,000. Isabella Eugenia, governess of the Netherlands, made a vow she would not

shift her smock before Ostend surrendered; but before the town was taken it had greatly changed its colour. However, the ladies of the court, to keep her in countenance, had theirs dyed, that they might be like that of their mistress. This place was taken by the Dutch in 1706, but restored to the emperor in 1724, when an East India company was established here, but entirely suppressed by treaty in 1731. It was taken by the French in August 1745, after ten days siege, but rendered back by the treaty of Aix-la-Chapelle. It was lately over-run by the French Republicans, with Dumourier at their head, but was quickly recovered by the junction of the allies, and is now in the hands of the Emperor. It was thought to be in extreme danger after the unfortunate affair at Dunkirk†; but † September 1793. that storm having blown over, it appears now to be perfectly safe. It is ten miles W. of Bruges, eight N. E. of Newport, 22 N. E. of Dunkirk, and 60 N. W. of Brussels. E. Long. 3. 1. N. Lat. 51. 14.

OSTEOCOLLA, *οστεοκόλλα*, in natural history, a white or ash-coloured sparry substance, in shape like a bone, and by some supposed to have the quality of uniting broken bones, on which account it is ordered in some plasters; a supposition we fear which is not warranted by experience. It is found in long, thick, and irregularly cylindric pieces, which are in general hollow, but are sometimes filled up with a marly earth, and sometimes contain within them the remains of a stick, round which the osteocolla had been formed; but though it is plain from thence that many pieces of osteocolla have been formed by incrustations round sticks, yet the greater number are not so, but are irregularly tubular, and appear to be formed of a flat cake, rolled up in a cylindric shape. The crusts of which these are composed do not form regular concentric circles round the internal cavity, as must have been the case had they been formed by incrustation. On the other hand, they plainly show that they were once so many thin strata, composing a flat surface, which has afterwards been rolled up, as one might do a paper three or four times doubled, into two, three, or more spiral lines; in which case, each single edge of the paper would be everywhere a regular point of a continued spiral line drawn from a given point; but they would by no means be so many detached concentric circles. The osteocolla is found of different sizes, from that of a crow-quill to the thickness of a man's arm. It is composed of sand and earth, which may be separated by washing the powdered osteocolla with water, and is found, both in digging and in several brooks, in many parts of Germany, and elsewhere. It is called *hammosteus* in many parts of Germany. It has this name in these places from its always growing in sand, never in clay, or any solid soil, nor even in gravel. Where a piece of it any where appears on the surface, they dig down for it, and find the branches run ten or twelve feet deep. They usually run straight down, but sometimes they are found spreading into many parts near the surface, as if it were a subterraneous tree, whose main stem began at 12 feet depth, and thence grew up in a branched manner till met by the open air. The main trunk is usually as thick as a man's leg, and the branches that grow out from it are thickest near the trunk, and thinner as they

Osteocolla
||
Ostervald.

they separate from it. The thinnest are about the size of a man's finger. The people employed to collect it, when they cannot find any mark of it on the surface, search after the specks of white or little lumps of whitish soft matter, which they find lying in various parts on the top of the sand. These always lead them either to a bed of perfect osteocolla, or to some in the formation. If they miss of it, they still find a substance like rotten wood; which, when traced in its course, is found to proceed from a main trunk, at the depth of that of the osteocolla, and to spread itself into branches in the same manner. The diggers call this substance the flower of osteocolla or hammosteus.

The osteocolla found in the earth is at first soft and ductile; but in half an hour's time, if exposed to the air, it becomes as hard as we find it in the shops. The method to take up a perfect piece for a specimen is to open the ground, clear away the sand, and leave it so for an hour or thereabouts: in this time it will harden, and may be taken out whole. It is certain, that the osteocolla is produced at this time; for if a pit be cleared of it, there will more grow there in a year or two, only it will be softer, and will not harden so easily in the air as the other. What the rotten substance resembling the decayed branches of trees is, we cannot determine, unless it really be such; but the opinion of the common people, that it is the root of something, is absurd, because its thickest part always lies at the greatest depth, and the branches all run upwards. The osteocolla is a marly spar, which concretes round this matter; but what it is that determines it to concrete nowhere on the same ground but about these branches, it is difficult to say. The rottenness of this substance, which forms the basis of the osteocolla, renders it very liable to moulder and fall away; and hence it is that we usually see the osteocolla hollow. Sometimes it is found solid; but in this case there will be found to have been a vegetable matter serving as its basis, and instead of one branch, it will be found in this case to have concreted about a number of fibres, the remains of which will be found in it on a close examination. See *Philos. Trans.* n° 39.

OSTEOLOGY, that part of anatomy which treats of the bones. See ANATOMY, Part I.

OSTERVALD (John Frederick), a famous Protestant divine, was born at Neufchattel in 1663; and made such rapid progress in his studies, that he became master of arts at Saumur before he was 16 years of age. He afterwards studied at Orleans and at Paris. At his return to Neufchattel in 1699, he became pastor of the church there; and contracted a strict friendship with the celebrated John Alphonfus Turretin of Geneva, and the illustrious Samuel Werenfels of Basil. The union of these three divines, which was called the *Triumvirate of the divines of Switzerland*, lasted till his death. Mr Ostervald acquired the highest reputation by his virtues, his zeal in instructing his disciples, and restoring ecclesiastical discipline. He wrote many books in French; the principal of which are, 1. A Treatise concerning the Sources of Corruption, which is a good moral piece. 2. A Catechism, or Instruction in the Christian Religion; which has been translated into German, Dutch, and English; and the Abridgment of the Sacred Hi-

story, which he prefixed to it, was translated and printed in Arabic, in order to be sent to the East Indies, by the care of the Society for the Propagation of the Gospel; and that Society, established in London, paid him a high compliment, by admitting him an honorary member. 3. A treatise against Impurity. 4. An edition of the French Bible of Geneva, with Arguments and Reflections, in folio. 5. *Ethica Christiana*. 6. *Theologia Compendium*, &c. He died in 1747, regretted by all who knew him.

OSTIA is a borough situated at the mouth of the Tiber, about 12 miles to the westward of Rome. It was built by Ancus Martius, the fourth king of Rome, and was called *Ostia Tiberina*, in the plural number, i. e. the two mouths of the Tyber, which were separated by the Holy Island, an equilateral triangle, whose sides were each of them computed at about two miles. The colony of Ostia was founded immediately beyond the left or southern, and the port immediately beyond the right or northern, branch of the river; and the distance between their remains measures something more than two miles on Cingolani's map. In the time of Strabo, the sand and mud deposited by the Tyber had choaked the harbour of Ostia; the progress of the same cause has added much to the size of the Holy Island, and gradually left both Ostia and the port at a considerable distance from the shore. The dry channels (*fiumi morti*), and the large estuaries (*stagno di Ponente, de Levante*), mark the changes of the river, and the efforts of the sea. Its port was one of the most stupendous works of Roman magnificence, and it was a long time one of the best towns on the coast; but having been destroyed by the Saracens, and the harbour choaked up, as mentioned above, it has not been able since to recover itself. Though it be an inconsiderable place, and but poorly inhabited by reason of the badness of the air, yet it is the see of a bishop, who is always deacon of the cardinals, and crowns the Pope. The old Ostia, where you see the ruins of the ancient harbour, is beyond New Ostia, towards the sea; the latter is but a little cluster of houses, with a small castle. It is 12 miles S. W. of Rome. E. Long. 12. 24. N. Lat. 41. 44. There were salt-works in Ostia, called *Salina Ostienses*, as early as the times of Ancus Martius (Livy); from which the *Via Salaria*, which led to the Sabines, took its name, (Varro). It gave name to one of the gates of Rome, which was called *Ostiensis* (Ammian).

OSTIACKS, a people of Siberia in Asia. They live upon the banks of the rivers Oby and Jenisay, and on those of some other rivers which fall into these. These people are very poor, and very lazy, and in the summer-time live mostly upon fish. They are of a middle size, with broad faces and noses, and yellowish or red hair. All their garments from top to toe are made of fish skins, for they have neither linen nor woollen; and indeed they might almost as well go naked. Their greatest diversion is hunting; and they go together in crowds, with a weapon like a large knife fastened in a stick. In summer they take and dry the fish which serves them in winter; and when that season begins, they go into the woods with their bows and arrows, their dogs and nets, to kill fables, ermines, bears, rein-deer, elks, martens, and foxes. Part of the furs of these is paid as a tax to the empress of

Ostia,
Ostiacks.

Ostiacks. of Russia, and the rest are sold at a stated price to the Russian governors, but sometimes they are allowed to dispose of them to private persons.

They chiefly live upon venison, wild-fowl, fish, and roots, for they have neither rice nor bread. They drink for the most part water, and it is said they can very well relish a draught of train oil. They are immoderately fond of tobacco, and of swallowing the smoke, which soon intoxicates them. In the winter they build their huts in woods and forests, where they find the greatest plenty of game, and dig deep in the earth to secure themselves from the cold, laying a roof of bark or rushes over their huts, which are soon covered with snow. In summer they build above ground on the banks of the rivers, to enjoy the convenience of fishing, and make no difficulty of forsaking their habitations. They have a sort of princes among them, in one of whose houses some European travellers found four wives (A). One of these had a red cloth coat on, and was set off with all sorts of glass beads. There was no other furniture than cradles and chests, made of the bark of trees sewed together. Their beds consisted of wood-shavings, almost as soft as feathers, and their children lie naked upon them in cradles. They can neither read nor write, nor do they cultivate the land; and seem totally ignorant of times past. They have neither temples nor priests; and their boats are only made of the bark of trees sewed together. Their religion is Pagan; and they have some little brazen idols, tolerably well cast, representing men and animals, made of wood and earth, all of which are dressed in silks, in the manner of Russian ladies. In general, however, they are ill made every man being his own carver. They place them on the tops of hills, in groves, and in the pleasantest places their country affords, and sometimes before their huts; yet they have no set time for performing religious worship, but apply to their gods for success in all their undertakings. As they have no regular priests, every old man may devote himself to that service, and the office is frequently performed by the masters and heads of families. Strahlenberg says, that when he was among them he saw one of their temples, which was built of wood in an oblong form like a great barn, covered at the top with birch-bark. At the end of the wall supporting the gable was a kind of altar, made of timber, on which were placed two idols, representing a man and woman dressed in all sorts of rags; and round these were other small figures, as deer, foxes, and hares, all which were roughly carved in wood, and also clothed in rags. They did not appear to have much devotion, nor any great reverence for their idols. When they offer sacrifices, they present the beast to the idol; and having bound it, an old man puts up the petitions of those who brought the offering; he then lets fly an arrow at the beast, and the people assist in killing it. It is then drawn three times round

the idol; and the blood being received into a vessel, they sprinkle it on their houses; they afterwards dress the flesh and eat it, rejoicing and singing their country songs: they also besmear the idol with the blood of the sacrifice, and grease their mouths with the fat. What they cannot eat they carry home to their families, and make presents of it to their neighbours: they as often sacrifice a fish as a beast. At the conclusion of the feast they shout, to show their gratitude to the idol for his attending and accepting their devotions; for they are persuaded that the saint or hero represented by the image always attends their sacrifices, which when over he returns to his abode in the air. There is nothing more surprising, nor, if properly improved, is there any thing more instructing, than the history of superstition. It is with this view that we have given so enlarged a view of the Ostiacks, longer, some may imagine, than their importance demands. It would, however, in our opinion, be improper to let such an opportunity slip of exhibiting the extreme weakness of unassisted reason, and the consequent necessity of a divine revelation. That the religion of these ignorant and misguided Pagans is the corruption of a primitive revelation, we think at least probable; nor do we see any way of so satisfactorily accounting for the universal use of sacrifices. The Ostiacks are obliged to take an oath of fidelity to the Russian government; and on these occasions they use the following ceremony. After laying down a bear skin and an axe, and holding over it a piece of bread on a knife, they say, "In case I do not to my life's end prove true and faithful to the supreme government of the country, or if I knowingly and willingly break through my allegiance, or be wanting in the duty I owe to the said supreme government, may the bear tear me to pieces in the wood; may the bread I eat stick in my throat, and choke me; may the knife stab me, and the axe cut off my head." The like ceremony is used among them in the deposition of a witness.

OSTRACION, in zoology, a genus of the amphibia nantes class. It has ten long cylindrical obtuse teeth in each jaw; the aperture is linear; the body is covered with a bony substance, and it has no belly-fins. There are nine species; principally distinguished by the angles of their bodies, and number of fins near their tail.

OSTRACISM, in Grecian antiquity, denotes the banishment of such persons whose merit and influence gave umbrage to the people of Athens, lest they should attempt any thing against the public liberty. This punishment was called *ostracism*, from the Greek word *οστρακον*, which properly signifies a "shell;" but when applied to this object, it is used for the billet on which the Athenians wrote the names of the citizens whom they intended to banish. The learned are divided with regard to the substance of which this billet was formed: some insist that it was a small stone, or a piece of brick;

(A) They may have as many wives as they please, and make no scruple of marrying their nearest relations. They purchase a wife of her relations for three or four rein-deer, and take as many as they please, returning them again if they do not like them, only losing what they gave for the purchase. Upon the birth of their children, some give them the name of the first creature they happen to see afterward. Thus the child has frequently the name of an animal, and you hear a man call his son perhaps *Sabat/ki*, or my little dog; others call their children according to the order of their birth, as *First*, *Second*, *Third*, &c.

Ostracism, brick; some that it was a piece of bark; and others assert, that it was a shell. The word admits most of these interpretations. But what determines its true sense, is the epithet given it by ancient authors, of *ceramîe mastix*; which words signify, "The punishment of potter's clay;" and this expression seems to us a proof, that the word *οστρακισμός*, when applied on this occasion, signifies a "piece of baked earth, in the form of a shell;" and undoubtedly the Latin authors had this idea of the word here, for they translated it by *testula*.

The ancients are likewise divided with regard to the time when ostracism was instituted. But they all agree, that the person who moved the law was its first victim. But as to the name of its patron, and the time of its establishment, they differ extremely. Many are of opinion, that ostracism owes its origin to very remote times.

However that be, the punishment of ostracism was inflicted by the Athenians when their liberty was in danger. If, for instance, jealousy or ambition had sowed discord among the chiefs of the republic; and if different parties were formed, which threatened some revolution in the state; the people assembled to propose measures proper to be taken in order to prevent the consequences of a division which in the end might be fatal to freedom. Ostracism was the remedy to which they usually had recourse on these occasions; and the consultations of the people generally terminated with a decree, in which a day was fixed for a particular assembly, when they were to proceed to the sentence of ostracism. Then they who were threatened with banishment, omitted no assiduity or art which might gain them the favour of the people. They made harangues to evince their innocence, and the great injustice that would be done them if they were banished. They solicited, in person, the interest of every citizen; all their party exerted themselves in their behalf; they procured informers to vilify the chiefs of the opposite faction. Some time before the meeting of the assembly, a wooden inclosure was raised in the forum, with ten doors, *i. e.* with as many as there were tribes in the republic; and when the appointed day was come, the citizens of each tribe entered at their respective door, and threw into the middle of the inclosure the small brick on which the citizen's name was written whose banishment they voted. The archons and the senate presided at this assembly, and counted the billets. He who was condemned by 6000 of his fellow-citizens, was obliged to quit the city within ten days; for 6000 voices, at least, were requisite to banish an Athenian by ostracism.

The Athenians, without doubt, foresaw the inconveniences to which this law was subject; but they chose rather, as Cornelius Nepos hath remarked, sometimes to expose the innocent to an unjust censure, than to live in continual alarms. Yet as they were sensible that the injustice of confounding virtue and vice would have been too flagrant, they softened, as much as they could, the rigour of ostracism. It was not aggravated with the circumstances which were most dishonourable and shocking in the ordinary mode of exile. They did not confiscate the goods of those who were banished by ostracism. They enjoyed the produce of their effects in the places into which they

were banished; and they were banished only for a certain time. But in the common banishment, the goods of the exiles were always confiscated, and no hopes were given them of ever returning to Athens.

The scholiast of Aristophanes informs us of a third difference betwixt ostracism and the common banishment. He says, that a particular place of retirement was assigned to those who were banished by ostracism, which was not appointed to the other exiles. We suspect, however, the truth of this observation; for Themistocles was certainly not limited in his banishment. That great man, as we are told by Thucydides, tho' his chief residence was at Argi, travelled over all the Peloponnesus.

This punishment, far from conveying the idea of infamy, became, at Athens, a proof of merit, by the objects on which it was inflicted; as Aristides the sophist justly observes, in his second declamation against the Gorgias of Plato, where he says, that ostracism was not an effect of the vindictive spirit of the people against those whom it condemned; that the law, whether good or bad (for he enters not into an examination of the question), was only meant to prune the luxuriant growth of transcendent merit; that it condemned to an exile of ten years, only those illustrious men who were accused of being exalted far above other citizens by their conspicuous virtue; and that none of that public indignation was shown to the exiles by ostracism, which commonly breaks out against criminals.

Such were the mitigations with which this law was introduced among the Athenians: and by them we see that they were sensible of all the inconveniences to which it was subject. They were indeed too enlightened a people, not to foresee the many instances of injustice which it might produce; that if in some respects it would be favourable to liberty, in others it would be its enemy, by condemning citizens without allowing them a previous defence, and by making a capricious and envious people arbiters of the fate of great men; that it might even become pernicious to the state, by depriving it of its best subjects, and by rendering the administration of public affairs an odious employment to men of capital talents and virtue.

However great the inconveniences of ostracism were, it would not have been impossible to avoid them; and we may add, that this law would have been of service to the state, if the people by whom it was instituted had always had discernment enough only to give it force on such occasions as endangered liberty. But its fate was like that of almost all other laws which the wisest legislators have planned for the good of communities. Destined by their institution to maintain order, to repress injustice, and to protect innocence, men have found ways to pervert their application, and have made them instruments to gratify their private passions. Thus ostracism was established to prevent the dangerous enterprises of the great, and to preserve the vigour of the democracy; but the people of Athens, naturally jealous and envious, exerted that law, to remove men of eminent merit from the state, by whose presence they were reprov'd and intimidated. The fear of tyranny was commonly but a specious pretext with which they veiled their malignity. The

Ostracites, repeated victories which they had gained over the Persians, had rendered them, says Plutarch, proud and insolent. Intoxicated with their prosperity, they arrogated all its glory to themselves; they were jealous of those citizens whose political and military talents were the subjects of public eulogium. They thought the glory acquired by great men diminished their own reputation. An Athenian no sooner distinguished himself by a splendid action, than he was marked out as a victim by public envy. His reputation was a sufficient reason for his banishment.

OSTRACITES, in natural history, a name used for the fossil oysters, common in many parts of England. They are of various shapes and kinds; and the name is by some authors made to signify the shell itself, when preserved in its native state and condition; as is the case with those about Woolwich and Blackheath; and by others, the stones cast or formed in those shells, or in cavities from whence they have been washed away and dissolved: in both these cases the stone carries the exact resemblance of the shell, even in its nicest lineaments; in the first case, bearing every mark of the inside, in the other of the outer surface. We have this stone in great plenty in many parts of England; and it is very famous, in some places, for its virtues in cases of the gravel, and the like complaints.

OSTREA, the **OYSTER**, in zoology, a genus belonging to the order of vermes testacea. The shell has two unequal valves; the cardo has no teeth, but a small hollowed one with transverse lateral streaks. There are 31 species, principally distinguished by peculiarities in their shells. The common oyster is reckoned an excellent food; and is eaten both raw and variously prepared. The character of the genus, in the words of Barbut, is, "The animal a tethys; the shell bivalve, unequivalve, with something like ears; the hinge void of teeth, with a deep oval hole, and transverse streaks on the sides. There is no womb nor anus." The genus is divided into four families, of which *ostrea* is the last. See **PECTENS**. The same author gives us the following enlarged account of the oyster.

"This sea-fish occupies in the scale of nature one of the degrees the most remote from perfection; destitute of defensive weapons and progressive motion, without art or industry, it is reduced to mere vegetation in perpetual imprisonment, though it every day opens regularly to enjoy the element necessary to its preservation. The animal figure, and the springs of its organization, are scarce discernible through the coarse and shapeless mass; a ligament placed at the summit of the shell serves as an arm to its operations. Oysters are reputed to be hermaphrodites; the spawn which they cast in May adheres to the rocks and other matters at the bottom of the sea; and in the space of 24 hours is provided with shells, in which are contained other oysters, that never leave the spot on which they were fixed, till the greedy fisherman tears them from the element. The green oysters eaten at Paris are commonly brought from Dieppe. Their colour is owing to the care taken to bed them in creeks, encompassed with verdure, whence they acquire their delicacy. Common oysters should be fresh, tender, and moist. The most esteemed are those caught at the mouth of rivers, and in clear water.

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Great account is made of oysters from Brittany, but still greater of those that come from Marennes in Saintonge. Preference is given to those that are edged with small brown fringe, or beard, which epicures call fecundated oysters; but that those are females is a mistake. The want of fresh water renders oysters hard, bitter, and unpalatable. Mud and seaweeds destroy them in their very birth; galangal root, muscles, scollops, sea-stars, and crabs, are formidable enemies to the oyster. There are found in Spain red and russet coloured oysters; in Illyria, brown coloured, with the flesh black; and in the Red Sea, of the colour of the Iris. Oysters of the mangle-tree are of two sorts; those of St Domingo are delicate, adhering to the stumps of the trees that dip in the water. The negro divers cut them off with a bill, and they are served upon table with the roots."

Britain has been noted for oysters from the time of Juvenal, who, satyrizing Montanus an epicure, says,

*Circæis nata forent, an
Lucrinum ad saxum, Rutupinæq; edita fundo,
Ostrea, callebat primo deprendere morsu.*

He, whether Circe's rock his oysters bore,
Or Lucrine lake, or distant Richborough's shore,
Knew at first taste.

The luxurious Romans were very fond of this fish, and had their layers or stews for oysters as we have at present. Sergius Orata was the first inventor, as early as the time of L. Crassus the orator. He did not make them for the sake of indulging his appetite, but thro' avarice, and made great profits from them. Orata got great credit for his Lucrine oysters; for, says Pliny, the British were not then known.

The ancients eat them raw, having them carried up unopened, and generally eating them at the beginning of the entertainment, but sometimes roasted. They had also a custom of stewing them with mallows and ducks, or with fish, and esteemed them very nourishing.

Britain still keeps its superiority in oysters over other countries. Most of our coasts produce them naturally; and in such places they are taken by dredging, and are become an article of commerce, both raw and pickled. The very shells, calcined, become an useful medicine as an absorbent. In common with other shells, they prove an excellent manure.

Stews or layers of oysters are formed in places which nature never allotted as habitations for them. Those near Colchester have been long famous; at present there are others that at least rival the former, near the mouth of the Thames. The oysters, or their spats, are brought to convenient places, where they improve in taste and size. It is an error to suppose, that the fine green observed in oysters taken from artificial beds, is owing to copperas; it being notorious how destructive the substance or the solution of it is to all fish. We cannot give a better account of the cause, or of the whole treatment of oysters, than what is preserved in the learned bishop Sprat's history of the Royal Society, from p. 307 to 309.

"In the month of May, the oysters cast their spawn, (which the dredgers call their *spats*); it is like to a drop of candle, and about the bigness of a half-

3 Y

penny

Ostrea.

penny. The spat cleaves to stones, old oyster-shells, pieces of wood, and such like things, at the bottom of the sea, which they call *cultch*. It is probably conjectured, that the spat in 24 hours begins to have a shell. In the month of May, the dredgers (by the law of the admiralty court) have liberty to catch all manner of oysters, of what size soever. When they have taken them, with a knife they gently raise the small brood from the clutch, and then they throw the cultch in again, to preserve the ground for the future, unless they be so newly spat, that they cannot be safely severed from the cultch; in that case they are permitted to take the stone or shell, &c. that the spat is upon, one shell having many times 20 spats. After the month of May, it is felony to carry away the cultch, and punishable to take any other oysters, unless it be those of size, (that is to say) about the bigness of an half-crown piece, or when, the two shells being shut, a fair shilling will rattle between them.

"The places where these oysters are chiefly caught, are called the *Pent-Burnham*, *Malden*, and *Colne-waters*; the latter taking its name from the river of Colne, which passeth by Colchester, gives name to that town, and runs into a creek of the sea, at a place called the *Hythe*, being the suburbs of the town. This brood and other oysters they carry to the creeks of the sea, at *Brickelsea*, *Mersey*, *Langno*, *Fingrego*, *Wivenho*, *Tolesbury*, and *Saltcoase*, and there throw them into the channel, which they call their *beds* or *layers*, where they grow and fatten; and in two or three years the smallest brood will be oysters of the size aforesaid. Those oysters which they would have green, they put into pits about three feet deep in the salt-marshes, which are overflowed only at spring-tides, to which they have sluices, and let out the salt-water until it is about a foot and half deep. These pits, from some quality in the soil co-operating with the heat of the sun, will become green, and communicate their colour to the oysters that are put into them in four or five days, though they commonly let them continue there six weeks or two months, in which time they will be of a dark green. To prove that the sun operates in the greening, *Tolesbury* pits will green only in summer; but that the earth hath the greater power, *Brickelsea* pits green both winter and summer: and for a further proof, a pit within a foot of a greening-pit will not green; and those that did green very well, will in time lose their quality. The oysters, when the tide comes in, lie with their hollow shell downwards; and when it goes out, they turn on the other side: they remove not from their place, unless in cold weather, to cover themselves in the ouse. The reason of the scarcity of oysters, and consequently of their dearness, is, because they are of late years bought up by the Dutch.

"There are great penalties by the admiralty court laid upon those that fish out of those grounds which the court appoints, or that destroy the cultch, or that take any oysters that are not of size, or that do not tread under their feet, or throw upon the shore, a fish which they call a *five finger*, resembling a spur-rowl, because that fish gets into the oysters when they gape, and sucks them out.

"The reason that such a penalty is set upon any

that shall destroy the cultch, is, because they find that if that be taken away, the ouse will increase, and the mussels and cockles will breed there, and destroy the oysters, they having not whereon to stick their spat.

"The oysters are sick after they have spat; but in June and July they begin to mend, and in August they are perfectly well: the male oyster is black-sick, having a black substance in the fin; the female white-sick (as they term it), having a milky substance in the fin. They are salt in the pits, saltier in the layers, but saltest at sea."

The oyster affords the curious in microscopic observations a very pleasing entertainment. In the clear liquor many little round living animalcules have been found, whose bodies being conjoined, form spherical figures, with tails, not changing their place otherwise than by sinking to the bottom, as being heavier than the fluid; these have been seen frequently separating, and then coming together again. In other oysters, animalcules of the same kind were found, not conjoined, but swimming by one another, whence they seemed in a more perfect state, and were judged by Mr *Leeuwenhoek* to be the animalcules in the roe or semen of the oyster.

A female oyster being opened, incredible multitudes of small embryo oysters were seen, covered with little shells, perfectly transparent, and swimming along slowly in the liquor; and in another female, the young ones were found of a browner colour, and without any appearance of life or motion.

Monsieur Joblot also kept the water running from oysters three days, and it appeared full of young oysters swimming about nimbly in it; these increased in size daily; but a mixture of wine, or the vapour of vinegar, killed them.

In the month of August oysters are supposed to breed, because young ones are then found in them. Mr *Leeuwenhoek*, on the 4th of August, opened an oyster, and took out of it a prodigious number of minute oysters, all alive, and swimming nimbly about in the liquor, by means of certain exceeding small organs, extending a little way beyond their shells; and these he calls their beards. In these little oysters, he could discover the joinings of the shells; and perceived that there were some dead ones, with their shells gaping. These, tho' so extremely minute, are seen to be as like the large oysters in form as one egg is to another.

As to the size of them, he computes, that 120 of them in a row would extend an inch; and consequently, that a globular body, whose diameter is an inch, would, if they were also round, be equal to 1,728,000 of them. He reckons 3000 or 4000 are in one oyster, and found many of the embryo oysters among the bairds; some fastened thereto by slender filaments, and others lying loose: he likewise found animalcules in the liquor 500 times less than the embryo oysters.

It is not very uncommon to see on oyster-shells, when in a dark place, a shining matter or bluish light, like a flame of brimstone, which sticks to the fingers when touched, and continues shining and giving light for a considerable time, though without any sensible heat. This shining matter being examined with a microscope, was found to consist of three sorts of animalcules;

Osh
Oswestry. cules; the first whitish, and having 24 or 25 legs on a side, forked, a black speck on one part of the head, the back like an eel with the skin stripped off. The second sort, red, resembling the common glow-worm, with folds on its back, but legs like the former; a nose like a dog's, and one eye in the head. The third sort, speckled, with a head like a sole, with many tufts of whitish hairs on the sides of it. Some much larger and greyish might be seen, having great heads, two horns like a snail's, and six or eight whitish feet; but these did not seem to shine.

OSTRICH, in zoology. See STRUTHIO.

OSTROVIZZA, in Dalmatia (see DALMATIA), which some would have the same as Arauzona, and others the Stlupi of the ancients, though probably it has no connection with either the one or the other. It was purchased in 1410 by the republic of Venice, for 5000 ducats, and some pieces of land besides. Its fortress, which was seated on a rock, perpendicularly cut all round, and deservedly reckoned impregnable before the use of artillery, was taken by Soliman in 1524, but soon after returned under the dominion of Venice. At present, no traces of its fortification remain, and it is only a bare and isolated mass. There are some natural curiosities about the place.

OSTUNI, a town of Italy, in the kingdom of Naples, and in the Terra di Otranto, with a bishop's see. Its territory is well cultivated, and abounds with olives and almonds. It is seated on a mountain near the Gulph of Venice, in E. Long. 17. 49. N. Lat. 49. 59.

OSWEGO, a fort of North America, seated on the south side of the lake Ontario, in W. Long. 70. 35. N. Lat. 45. 15.

OSWEIZEN, a town of Poland, in the palatinate of Cracovia, with the title of a duchy. It carries on a great trade in salt, and is seated on the river Vistula. E. Long. 19. 47. N. Lat. 50. 1.

OSWESTRY, in the county of Salop, in England, 172 miles from London, is a very old town, with a castle, a wall, and a ditch, and was anciently a borough. It is a place celebrated in Saxon history and legendary piety. On this spot, August 5, 642, was fought the battle between the Christian Oswald king of the Northumbrians and the pagan Penda king of the Mercians, in which Oswald was defeated, and lost his life. The barbarian victor cut the body of the slain prince in pieces, and stuck them on stakes dispersed over the field as so many trophies; but, according to others, his head and hands only were thus exposed. A prince so dear to the church as Oswald, and so attached to the professors of the monastic life, received every posthumous honour they could bestow. He was raised to the rank of a saint, and his sanctity confirmed by numberless miracles, which are too numerous and too trifling to admit of particular description. Its church, which is of no great antiquity, was formerly a monastery, and was called Blancminster. It is, however, spacious, and has a handsome plain tower. In the years 1542 and 1567, this town suffered much by fire. It is governed by two bailiffs, burgesses, &c. and once drove a great trade in Welch cottons and flannels, which is now very much decayed. There is now scarce a tolerable house for travellers. But besides a good grammar school, it is noted for an excel-

lent charity-school for 40 boys, besides girls, which has the best methods for exciting the emulation of the children in their learning; for 20 of the boys are set to strive against 20 others for shoes, and the 20 who perform their task best have shoes first; then 10 of the boys are set against 10 others for the like premium, and so on till they are all shod: so in the girls school a shift is put up for the best spinner, a head-dress for the best sempstress, a pair of stockings for the best knitter, a bible for the best reader, and a copy-book for the best writer. In the wall with which the town was fortified there were four gates. That called the *Block-gate* is demolished; the *New-gate*, *Willow-gate*, and the *Beatrice-gate*, still remain. The last is a handsome building, with a guard-room on both sides. There are only two fragments of the castle remaining. It stood on an artificial mount, surrounded by a fosse, extending to the *Willow-gate*.

OSYMANDES, a famous king of Egypt, was, according to some authors, the first monarch who collected a great number of books for the purpose of forming a library. To this curious collection he gave the title of *Pharmacy of the Soul*. Of all the monuments of the kings of Thebes, that of Osymandes is one of the most magnificent. "He appears (says an elegant author) to have been a prince of great elegance and taste in his day. Diodorus Siculus describes many sumptuous edifices erected by him; among those edifices his palace or mausoleum, whichever it was, has been eminently distinguished for the paintings and sculptures with which it was adorned. When we look to the subjects of those works, we shall have reason to think that no man in any age could discover a fairer and more enlightened judgment than he did in the employment of the genius around him, which was not tamely devoted to dull or contracted objects, nor lavished on scenes of savage life, nor wholly engrossed in allusions to himself, but sensibly enlarged to a variety of contemplation which might become a great sovereign; and in each of those parts the subject was characteristically great.

"* In one place was represented, in a multitude of sculptures, his expedition against the Bactrians, a people of Asia, whom he had invaded with 400,000 foot, and 20,000 horse, and whom he conquered. In another part was displayed the variety of fruits and productions, with which Pan, the great source of all things, had enriched the fertile land over which Osymandes reigned. A third group of figures represented the monarch himself, as the high-priest of the country, offering to the gods the gold and silver which he drew every year from the mines of Egypt. In another part of the edifice was exhibited, in an infinite number of figures, an assembly of judges, in the midst of a great audience attentive to their decisions; the president, or chief of those judges, surrounded by many books, wore on his breast a picture of truth with her eyes shut—those emphatic emblems, beyond which no age could go for the impression of that wisdom and impartiality which ought to prevail in administrative justice."

In short, we cannot without astonishment read the account which Diodorus Siculus gives of the almost incredible magnificence of this prince, and of the immense sums which he spent upon those grand works.

Oswestry
Osyman-
des.

Bromley's
Hist. of the
Fine Arts,
vol. i.

* Diod. Sic.
a l. i. p. 45.
edit. Rhod-
dom.

Osyman-
des
||
Otaheitee

Amongst a variety of other surprising curiosities, was to be seen a statue in the attitude of sitting, which was the largest in all Egypt, the length of one of the feet being seven cubits. Not only the art of the sculptor, but also the beauty of the stone which was perfect in its kind, contributed to render this a masterpiece of sculpture. It bore the following inscription: *I am OSMANDES, king of kings; whoever will dispute with me this title, let him surpass me in any of my works.*

Indeed (to use the words of the same elegant author quoted above) "the palace or mausoleum of this accomplished prince must give us a striking assurance of the progress which had been made in the arts at that time; whether he lived, as some have thought †, the immediate successor of the first Busiris, which was somewhat later than the period of Semiramis; or, as others have conceived ‡, subsequent to Sesostris, which would be 400 years later. Diodorus Siculus, who describes that edifice, says nothing of the age in which Osmandes lived; every opinion therefore on that point must be conjecture. We shall only remark, that there is nothing in the works of art in that edifice which should appear too much for the earliest age in which that monarch has been placed, when we look back to what was done of those works in a period full as early by Semiramis in Assyria."

OTACOUSTIC INSTRUMENT, or *Auricular Tube*, an instrument to facilitate the hearing. See *Acoustics*, n° 25.

OTAHEITEE, a celebrated island of the South Sea, situated in W. Long. 149. 13. S. Lat. 17. 46. It was discovered by Captain Wallis in 1767; afterwards Mr Bougainville touched here; and it was visited by Captain Cook in 1773 and 1774, who had in 1769 sailed round the island in a boat to observe the transit of Venus.

The island consists of two distinct kingdoms, which are united by a narrow neck of land; the larger being called by the natives *Tiarrabou*, or *O-Tabeitee-Nue*; the smaller one *Opoureonou*, or *O-Tabeitee-Ete*. The circumference of both islands is about 40 leagues; the larger kingdom being divided into 43 districts. The country has a delightful romantic appearance. The coast, viewed from the sea, presents a most beautiful prospect, being elevated like an amphitheatre. The island is skirted with a reef of rocks, and towards the sea is level, being covered with fruit-trees of various kinds, particularly the cocoa-nut. At the distance of about three miles from the shore, the country rises into lofty hills that are covered with wood, and terminate in peaks, from which large rivers are precipitated into the sea. The stones everywhere appear to have been burnt, not one being found which did not give manifest signs of fire; so that there is great reason for supposing that this and the neighbouring islands are either the shattered remains of a continent, or were torn from rocks, which from the creation of the world have been the bed of the sea, and thrown up in heaps to a height which the waters never reach. What is further extraordinary, the water does not gradually grow shallow as we approach the shore, but is of immense depth close by the land; and the islands in this neighbourhood are almost everywhere surrounded by reefs, which appear to be rude and broken in the

manner that some violent concussion would naturally leave the solid substance of the earth; and Mr Forster saw a rock with projecting longitudinal angles of black compact basaltres. The exterior ranges of hills are sometimes entirely barren, and contain a great quantity of yellowish clay, mixed with iron ochre; but others are covered with mould and wood like the mountains in the internal parts of the country. Pieces of quartz are sometimes met with here; but no indications of precious minerals or metals of any kind have been observed, iron only excepted.

The air is extremely healthy and pleasant; the heat is not troublesome; and fresh meat will keep very well for two days, and fish one day. The winds do not blow constantly from the east, but generally a little breeze from east to south-south-east. The tide rises very little; and, being governed by the winds, is very uncertain. "The climate," says M. Bougainville, "is so healthy, that notwithstanding the hard labour of the ships companies while on shore, though the men were continually in the water, and exposed to the meridian sun, though they slept upon the bare soil, and in the open air, none of them fell sick; those who were afflicted with the scurvy, and were sent on shore, regained their strength: although they were obliged to assist in the erecting of a fort, and had scarce one uninterrupted night, yet they were so far recovered in the short space of time they continued there, that they were afterwards perfectly cured on board."

Notwithstanding the great height of the inland mountains of Otaheitee, none of their rocks have the appearance of barrenness, every one of them being covered with woods. "We hardly believed our eyes," says M. de Bougainville, "when we saw a peak covered with woods up to its highest summit, which rises above the level of the mountains in the interior parts of the southern quarter of this island. Its apparent size seemed to be more than 30 toises in diameter, and grew less in breadth as it rose higher. At a distance it might have been taken for a pyramid of immense height, which the hand of an able sculptor had adorned with garlands and foliage." One of the mates of the *Dolphin*, with a party of marines and seamen, penetrated into the interior parts of the island; and having ascended, with great difficulty, a mountain which they supposed to be a mile high, they discovered mountains before them so much higher, that with respect to them they seemed to be in a valley; towards the sea the view was enchanting, the sides of the hills were beautifully clothed with wood, villages were everywhere interspersed, and the valleys between them afforded a still richer prospect; the houses stood thicker, and the verdure was more luxuriant; and Mr Forster, with other gentlemen, ascended to the summit of one of the highest mountains in the island, from whence they had a prospect of the island of Huahine, and some others lying at the distance of 40 leagues; from which we may form some judgment of the prodigious height of that mountain. The view of the fertile plain below them, and of a river making innumerable meanders, was delightful in the highest degree. The vegetation on the upper part of the mountains was luxuriant, and the woods consisted of many unknown sorts of trees and plants.

The soil of this island is a rich fat earth, of a black-
Soil and
produce.

† See Rol-
lin's *Anc.*
Hist.
‡ *Marsbam*
p. 403.
Gouguet,
vol. ii.
p. 141.

I
Appear-
ance of the
country.

Climate.

High
mountains.

Otaheitee. ish colour. It produces spontaneously, or with the slightest culture imaginable, a great variety of the most excellent fruits; such as bread-fruit, cocoa-nuts, bananas of 13 sorts, plantains, potatoes, yams, a fruit known here by the name of *jambu*, and reckoned most delicious; sugar-canes, which the inhabitants eat raw; ginger; turmeric; a root of the salep kind, called by the inhabitants *pea*; a plant called *ethee*, of which the root only is eaten; a fruit that grows in a pod like that of a large kidney-bean, by the natives called *abee*; a tree called *wharra*, which produces fruit something like the pine-apple, and which is known in the East Indies by the name of *pandanes*; a shrub called *nono*; the *morinda*, which also produces fruit; a species of fern; a plant called *theve*; and the Chinese paper-mulberry, of the bark of which they make their cloth; an herb which the inhabitants eat raw, its flavour somewhat resembling that of the West India spinage called *calletoon*, but its leaf very different; a plant which the natives call *ava* or *eava*, from the root of which they express a liquor, which, if drank to excess, intoxicates like wine or distilled spirits. Here are a sort of shady trees covered with a dark-green foliage, bearing golden-coloured apples, which, in juiciness and flavour, resemble the ananas or pine-apple. One of the most beautiful trees in the world received here the name of *Barringtonia*; it had a great abundance of flowers larger than lilies, and perfectly white, excepting the tips of their numerous chives, which were of a deep crimson. Such a quantity of these flowers were seen dropped off, that the ground underneath the tree was entirely covered with them. The natives called the tree *buddov*; and said, that the fruit, which is a large nut, when bruised and mixed up with some shell-fish, and thrown into the sea, intoxicates the fish for some time, so that they come to the surface of the water, and suffer themselves to be taken with people's hands. Several other maritime plants in tropical climates are found to have the same quality. Mr Dalrymple describes the method of catching fish with these plants as follows: The plant is thrust under the coral rocks or hollows where the fish haunt; the effect is most sensible in still water, though it is effectual in the open sea; for the same gentleman says, he has seen fish soon after float on the surface of the water half dead, and some totally without life; and where the effect is less violent, the fish will be seen under the water to have lost their poise, without coming up to the surface. Fish caught in this manner are not in the least noxious or ill tasted.

5
Animals.

In this island they have domestic poultry exactly resembling those of Europe: besides which there are wild ducks; also beautiful green turtle-doves; large pigeons of a deep blue plumage and excellent taste; a small sort of paroquets, very singular on account of the various mixture of red and blue in their feathers; also another sort of a greenish colour, with a few red spots; the latter are frequently tamed, and are valued on account of their red feathers. Here is a king-fisher of a dark green, with a collar of the same hue round his white throat; a large cuckoo, and a blue heron. Small birds of various kinds dwell in the shady trees; and, contrary to the generally received opinion that birds in warm climates are not remarkable for their song, have a very agreeable note. There were

no quadrupeds but dogs, hogs, and rats; and for these last the natives were said to have a scrupulous regard, inasmuch that they would by no means kill them; however, Captain Cook, in 1773, turned about 14 cats on the island, which have probably reduced the number of these vermin. No frogs, toads, scorpions, centipedes, or any kind of serpent, have been found here: the ants, however, are troublesome, but not very numerous. When the Endeavour first arrived here in 1769, the flies were found excessively troublesome; but musketto nets and fly-flaps in some measure removed the inconvenience. Sydney Parkinson, in his journal, says, that notwithstanding these flies are so great a nuisance, the natives, from a religious principle, will not kill them. But there is a strange disagreement in the accounts of different voyagers concerning this matter. For M. Bougainville says, "this island is not infested by those myriads of troublesome insects that are the plague of other tropical countries." And Mr Forster says, "not a gnat or musketto hummed unpleasantly about us, or made us apprehensive of its bite." This inconvenience must therefore be felt at certain seasons of the year, and in certain districts of the country, more sensibly than at other times and places. There is great variety of excellent fish; and, according to Aitourou, a native who embarked with M. de Bougainville, there are sea-snakes on the shore of Otaheitee, whose bite is mortal.

The inhabitants of Otaheitee are a stout, well-made, active, and comely people. The stature of the men, in general, is from five feet seven to five feet ten inches; the tallest man seen by Captain Wallis measured six feet three inches and a half; and Captain Cook, in his second voyage, describes O-Too, the king of Otaheitee, to be of that height. "In order to paint an Hercules or a Mars," says M. de Bougainville, "one could nowhere find such beautiful models." They are of a pale brown complexion; in general their hair is black, and finely frizzled; they have black eyes, flat noses, large mouths, and fine white teeth; the men wear their beards in many fashions, all of them plucking out a great part, and have prominent bellies. Most of them smell strong of the cocoa-nut oil. The women in general are much smaller, especially those of the lower rank or tawtows, which is attributed to their early and promiscuous intercourse with the men; whilst the better sort, who do not gratify their passions in the same unbridled manner, are above the middle stature of Europeans. Their skin is most delicately smooth and soft; they have no colour in their cheeks; their nose is generally somewhat flat, but their eyes are full of expression, and their teeth beautifully even and white. "The women," says M. de Bougainville, "have features not less agreeable than the generality of Europeans, and a symmetry of body and beautiful proportion of limbs which might vie with any of them. The complexion of the men is tawny; but those who go upon the water are much more red than those who live on shore. Some have their hair brown, red, or flaxen, in which they are exceptions to all the natives of Asia, Africa, and America, who have their hair black universally; here, in the children of both sexes, it is generally flaxen. The strongest expression is painted in the countenances of these people; their walk is graceful, and all their motions are performed

6
Description
of the inha-
bitants, &c.

Otaheitee.

performed with great vigour and ease." "I never beheld statelier men, (says Sidney Parkinson.) The men of consequence on the island wear the nails of their fingers long, which they consider as a very honourable badge of distinction, since only such people as have no occasion to work can suffer them to grow to that length. This custom they have in common with the Chinese; but the nail of the middle finger on the right hand is always kept short, the meaning for which peculiarity could not be learned. Only one single cripple was met with among them, and he appeared to have been maimed by a fall. The women always cut their hair short round their heads. Both sexes have a custom of staining their bodies, which they call *tattooing*; both men and women have the hinder part of their thighs and loins marked very thick with black lines in various forms; these marks are made by striking the teeth of an instrument somewhat like a comb just through the skin, and rubbing into the punctures a kind of paste made of foot and oil, which leaves an indelible stain. The boys and girls under twelve years of age are not marked; a few of the men, whose legs were marked in chequers by the same method, appeared to be persons of superior rank and authority. Mr Banks saw the operation of tattooing performed upon the backside of a girl about thirteen years old. The instrument used upon this occasion had thirty teeth; and every stroke, of which at least a hundred were made in a minute, drew an ichor or serum a little tinged with blood. The girl bore it with most stoical resolution for about a quarter of an hour; but the pain of so many hundred punctures as she had received in that time, then became intolerable. She first complained in murmurs, then wept, and at last burst into loud lamentations, earnestly imploring the operator to desist. He was, however, inexorable; and when she began to struggle, she was held down by two women, who sometimes soothed and sometimes chid her; and now and then, when she was most unruly, gave her a smart blow. Mr Banks staid in a neighbouring house an hour, and the operation was not over when he went away; yet it was performed but upon one side, the other having been done some time before; and the arches upon the loins, in which they most pride themselves, and which give more pain than all the rest, were still to be done. Both men and women are not only decently but gracefully clothed, in a kind of white cloth that is made of the bark of a shrub, and very much resembles coarse China paper. Their dress consists of two pieces of this cloth; one of them, having a hole made in the middle to put the head through, hangs from the shoulders to the mid-leg before and behind; another piece, which is between four and five yards long, and about one yard broad, they wrap round the body in a very easy manner: This cloth is not woven; but is made like paper, of the macerated fibres of the inner bark spread out and beaten together. Their ornaments are feathers, flowers, pieces of shell, and pearls; the pearls are worn chiefly by the women. In wet weather they wear matting of different kinds, as their cloth will not bear wetting. The dress of the better sort of women consists of three or four pieces: one piece, about two yards wide and eleven long, they wrap several times round their waist, so as to hang down like a petticoat as low as the

middle of the leg; and this they call *parou*. This Otaheitee, simple drapery affords the sex an opportunity of displaying an elegant figure to the greatest advantage, according to the talents and taste of the wearer: no general fashions force them to disfigure instead of adorning themselves, but an innate gracefulness is the companion of simplicity. To this cloth they give a very strong perfume.

The chief use which they make of their houses is to sleep in them: for unless it rains, they eat in the open air under the shade of a tree. These houses are no other than sheds, all built in the wood between the sea and the mountains; they are erected on an oblong square; their width is nearly half of their length; they are nothing more than a roof, not quite four feet from the ground, raised on three rows of pillars, one row on each side, and one in the middle. The roof resembles our thatched houses in England, and consists of two flat sides inclining to each other. Their thatch consists of palm-leaves. The floor of their dwelling is covered with hay, over which they spread mats. Some of these erections are furnished with a stool, which is appropriated solely to the use of the master of the family: they consist of no other furniture except a few blocks of wood, which being square, one side is hollowed into a curve; and these they use as pillows, and with their apparel they cover themselves. In these open dwellings the whole family repose themselves at night. The size of the house is proportioned to the number that constitutes the family. The established order in these dormitories is, for the master and his wife to sleep in the middle; round them the married people; in the next circle the unmarried women; and in the next, at the same distance, the unmarried men; and the servants at the extremity of the shed; but in fair weather the latter sleep in the open air. Some few dwellings, however, constructed for greater privacy, are entirely inclosed with walls of reeds, connected together with transverse pieces of wood, so as to appear somewhat like large bird-cages closely lined; in these houses there is commonly a hole left for the entrance, which can be closed up with a board.

Their candles are made of the kernels of a kind of oily nut, which they stick one above another on a skewer that is thrust through the middle of them; the upper one being lighted burns to the second, at the same time consuming that part of the skewer that goes through it; the second taking fire burns in the same manner down to the third, and so to the last; they burn a considerable time, and afford a pretty good light. The natives generally retire to rest about an hour after it is dark.

The food of the common people entirely consists of vegetables. These are, the bread-fruit, with bananas, plantains, yams, apples, and a sour fruit, which, though not pleasant by itself, gives an agreeable relish to roasted bread-fruit, with which it is frequently beaten up: (See the article *BREAD-Tree*). The flesh, which is reserved for the tables of the great, is either poultry, hogs, or dogs; the flesh of their fowls is not well-tasted, but that of dogs is esteemed by the natives beyond pork. The smaller fish are generally eaten raw, as we eat oysters: every thing that can be procured from the sea is made an article of their food; for they will eat not only sea-insects, but what the seamen call

Of their houses.

Food, method of cookery, &c.

Otaheitee. blubbers, though some of them are so tough that they are obliged to suffer them to become putrid before they can be chewed. A very large shark being caught by the Dolphin's people was given to the natives; who soon cut it to pieces, and carried it away with great satisfaction.

They kill the animals they intend for food by suffocating them, which is done by stopping the mouth and nose with their hands; they then singe off the hair, by holding the animal over a fire, and scraping him with a shell: with this instrument they cut him up, and take out the entrails; which are washed, and put into cocoa-nut shells, together with the blood. Dogs are eaten that are fed wholly upon bread-fruit, cocoa-nuts, yams, and other vegetables, and are never suffered to taste any animal food; and those who have tasted the flesh of a dog thus fed, have declared it to be little inferior to English lamb. In order to dress their food, they kindle a fire, by rubbing the end of one piece of dry wood upon the side of another, in the manner as a carpenter with us whets a chisel. They then dig a pit about half a foot deep, and two or three yards in circumference; they pave the bottom with large pebble stones, which they lay down very smooth and even, and then kindle a fire in it with dry wood, leaves, and the husks of cocoa-nuts. When the stones are sufficiently heated, they take out the embers, and rake up the ashes on every side; they then cover the stones with a layer of green cocoa-nut leaves, and wrap up the animal that is to be dressed in the leaves of the plantain. If it is a small hog, they wrap it up whole; if a large one, they split it. When it is placed in the pit, they cover it with the hot embers, and lay upon them bread-fruit and yams, which are also wrapped up in the leaves of plantain. Over these they spread the remainder of the embers, mixing among them some of the hot stones, with more cocoa-nut-tree leaves upon them, and then close up all with earth, so that the heat is kept in; the oven is kept thus closed a longer or shorter time according to the size of the meat that is dressed. The meat, when taken out, is said to be better dressed than any other way. They use shells for knives; and carve very dexterously with them, always cutting from themselves. One of the principal attendants on Oberea, attempting the use of the knife and fork, could not feed himself therewith; but, by the mere force of habit, his hand came to his mouth, and the victuals at the end of his fork went away to his ear.

They are quite unacquainted with the method of boiling water, as they have no vessels among them that will bear the fire. Whilst the noble Oberea was one morning at breakfast with Captain Wallis on board the Dolphin, the surgeon filled the tea-pot by turning the cock of a vase that stood upon the table. One of the lady's attendants observed this practice very attentively, and soon after turning the cock himself, received the water upon his hand; he no sooner felt himself scalded, than he roared and danced about in an extravagant manner. The other Indians, unapprised of the cause of these emotions, stood gazing at him in amazement, and not without some mixture of terror: but the gentlemen in company, who soon perceived the cause of the outcry, dispelled the apprehensions of their visitants; and some ointment being applied to

the scald, good humour and confidence were again restored. The gunner of the ship, who was appointed comptroller of the market which was established on shore with the natives, used to dine on the spot; the astonishment of these people was very great to see him dress his pork and poultry in a pot; at length an old man, who was extremely serviceable in bringing down provisions to be exchanged, was put into possession of an iron pot, and from that time he and his friends ate boiled meat every day. Several iron pots were likewise given to Oberea and some of the chiefs; which were in constant use, and drew every body to see them; but although the particulars of two successive voyages of Captain Cook to this island are circumstantially related, we hear no more of this improvement in the culinary art, or of the further assistance which has been rendered those people in supplying them with pots for boiling; but however desirous the natives might be to eat boiled meat, it was not advisable to have such an article of barter as iron kettles, when a few spike nails, or a common hatchet, would procure one of their largest hogs.

Salt water is the usual sauce to their food; those who live near the sea have it furnished as it is wanted, others at a distance keep it in large bamboos. The kernels of the cocoa nuts furnish them with another sauce: these, made into a paste something of the consistence of butter, are beat up with salt water, which has a very strong flavour; but though at first it seemed very nauseous, yet when the taste became familiar, it was much relished.

Their general drink is water, or the milk of the cocoa-nut. They showed in general an aversion to strong liquors; and whenever any one of them happened to drink so freely with any of the ship's company as to be intoxicated, he resolutely refused to taste any thing that was likely to produce the same effect again; but they have a plant which they call *ava ava*, from the root of which they procure a liquor which has an inebriating quality. Their manner of preparing this strong drink is as simple as it is disgusting to an European. Several of the people take some of the root, and chew it till it is soft and pulpy; they then spit it out into a platter or other vessel, every one into the same: into this general receptacle water is poured according to the quantity prepared. The juice thus diluted, is strained through some fibrous stuff like fine shavings, after which it is fit for drinking, and it is always prepared for present use: it has a pepperish taste; drinks flat, and rather insipid; and though it intoxicates, yet Captain Cook saw but one instance where it had that effect, as the natives generally drink it with great moderation, and but little at a time. Sometimes they chew this root as Europeans do tobacco, and sometimes they will eat it wholly.

They eat alone, or at least only in company with a guest that happens to call in; and the men and women never sit down together to a meal: the shade of a spreading tree serves them for a parlour; broad leaves spread in great abundance serve for a table-cloth; and if a person of rank, he is attended by a number of servants who seat themselves round him: before he begins his meal, he washes his mouth and hands very clean, and repeats this several times whilst he is eating. The quantity

Otaheitee.

Otaheitee. quantity of food which these people eat at a meal is prodigious. Captain Cook says, he has seen one man devour two or three fishes as big as a peach; three bread-fruits, each bigger than two fists; 14 or 15 plantains, or bananas, each six or seven inches long and four or five round, and near a quart of the pounded bread-fruit. Men of rank are constantly fed by their women; and one of the chiefs who dined on board the ships in 1769, showed such reluctance to feed himself, that one of the servants was obliged to feed him to prevent his returning without his meal. In one of the excursions which the gentlemen of the ships made into the country in 1773, they arrived at a neat house, where a very fat man, who seemed to be a chief of the district, was lolling on his wooden pillow; before him two servants were preparing his desert, by beating up with water some bread-fruit and bananas in a large wooden bowl, and mixing with it a quantity of fermented sour paste called *mabie*. While this was doing, a woman, who sat down near him, crammed down his throat by handfuls the remains of a large baked fish, and several bread-fruits, which he swallowed with a voracious appetite; his countenance was the picture of phlegmatic insensibility, and seemed to testify that all his thoughts centered in the gratification of his appetite. He scarce deigned to look at the strangers; and a few monosyllables which he uttered, were extorted from him to remind his feeders of their duty, when by gazing at them they grew less attentive to him.

That these people, who are remarkably fond of society, and particularly that of their women, should exclude its pleasures from the table, where, among all other nations, whether civil or savage, they have been principally enjoyed, is truly inexplicable. How a meal, which everywhere else brings families and friends together, comes to separate them here, was a singularity much inquired about, but never accounted for. "They ate alone (they said), because it was right;" but why it was right to eat alone, they never attempted to explain. Such, however, was the force of habit in this instance, as it is in every other, that they expressed the strongest dislike, and even disgust, at their visitants eating in society, especially with women, and of the same victuals. "At first (says Captain Cook) we thought this strange singularity arose from some superstitious opinion; but they constantly affirmed the contrary. We observed also some caprices in the custom, for which we could as little account as the custom itself. We could never prevail with any of the women to partake of the victuals at our table, when we were dining in company; yet they would go five or six together into the servants apartments, and there eat very heartily of whatever they could find: nor were they in the least disconcerted if we came in while they were doing it. When any of us have been alone with a woman, she has sometimes eaten in our company; but then she has expressed the great unwillingness that it should be known, and always extorted the strongest promises of secrecy. Among themselves, even two brothers and two sisters have each their separate baskets of provisions, and the apparatus of their meal. When they first visited us at our tents, each brought his basket with him; and when we sat down to table, they would go out, sit down upon the ground, at two or three yards distance from each other, and turning

their faces different ways take their repast without exchanging a single word. The women not only abstain from eating with the men, and of the same victuals, but even have their victuals separately prepared by boys kept for that purpose, who deposit it in a separate shed, and attend them with it at their meals. But though they would not eat with us, or with each other, they have often asked us to eat with them, when we have visited those with whom we were particularly acquainted at their houses; and we have often upon such occasions eaten out of the same basket, and drank out of the same cup. The elder women, however, always appeared offended at this liberty; and if we happened to touch their victuals, or even the basket that contained it, they would throw it away."

After meals, and in the heat of the day, the middle-aged people of the better sort generally sleep. They are indeed extremely indolent; and sleeping and eating are almost all that they do. Those that are older are less drowsy, and the boys and girls are kept awake by the natural activity and sprightliness of their age.

These islanders, who inhabit huts exposed to all the winds, and hardly cover the earth, which serves them for a bed, with a layer of leaves, are remarkably healthy and vigorous, and live to an old age without enduring any of its infirmities; their senses are acute, and they retain their beautiful teeth to the last. M. de Bougainville describes an old man, whom they saw on their landing, who had no other character of old age, than that respectable one which is imprinted on a fine figure. His head was adorned with white hair, and a long white beard; all his body was nervous and fleshy; he had neither wrinkles, nor showed any other tokens of decrepitude. This venerable man seemed displeased at the arrival of these strangers; he even retired without making any returns to the courtesies they paid to him; but he gave no signs either of fear, astonishment, or curiosity: very far from taking any part in the raptures which the multitude expressed, his thoughtful and suspicious air seemed to indicate, that he feared the arrival of a new race of men would interrupt the happiness he had so long enjoyed. From whence it may be inferred, that his mind was not a whit more impaired than his body. There are, however, several sorts of leprous complaints on this island, which appear in cutaneous eruptions of the scaly kind; some were seen that had ulcers upon different parts of their bodies; yet they seemed little regarded by those who were afflicted with them, and no application whatever was used to them, not so much as to keep off the flies. But instances of them are rare, as the excellency of their climate, and the simplicity of their vegetable food, prevent almost all dangerous and deadly disorders. They are sometimes afflicted with the cholic, and coughs are not unknown among them; and the chiefs, who fare more sumptuously, as a punishment for their voluptuousness are sometimes attacked with a disorder similar to the gout, in which the legs are swelled and excessively painful. M. de Bougainville's surgeon assured him, that he had seen many with marks of the small-pox.

The usual method employed here to restore the sick to health, is by pronouncing a set form of words; after which

Otaheitee. which the exorcist applies the leaves of the cocoa-tree plaited to the fingers and toes of the sick; so that nature is left to conflict with the disease, without being assisted with any salutary application of art. But tho' they seem utterly destitute of medical knowledge, they appear to be no inconsiderable proficient in surgery, which they had an opportunity of proving while the Dolphin lay here. One of the seamen, when on shore, ran a large splinter into his foot; and the surgeon not being at hand, one of his comrades endeavoured to take it out with a pen-knife; but after putting the poor fellow to a great deal of pain, he was obliged to give it over: an old native, who had been very active and successful in establishing a good understanding between the ship's company and his countrymen, happening to be present, called a man from the other side of the river, who having examined the lacerated foot, fetched a shell from the beach, which he broke to a point with his teeth; with which instrument he laid open the wound, and extracted the splinter. Whilst this operation was performing, the old man went a little way into the wood, and returned with some gum, which he applied to the wound upon a piece of the cloth that was wrapped round him, and in two days time it was perfectly healed. This gum was produced by the apple-tree; the surgeon of the ship procured some of it, and used it as a vulnerary balsam with great success. Captain Cook, in 1769, saw many of the natives with dreadful scars; one man, in particular, whose face was almost entirely destroyed: his nose, including bone, was perfectly flat; and one cheek and one eye were so beaten in, that the hollow would almost receive a man's fist; yet no one ulcer remained.

The venereal disease is said to have been entailed upon these people by the crew of M. de Bougainville's ships, who visited this island a short time after Captain Wallis had left it. In 1769, more than one-half of the crew in Captain Cook's ship had contracted it, during a month's stay here. The natives distinguished it by a name of the same import with rottenness, but of a more extensive signification. They described, in the most pathetic terms, the sufferings which the first victims to its rage endured; and told him that it caused the hair and the nails to fall off, and the flesh to rot from the bones; that it spread an universal terror and consternation among the inhabitants, so that the sick were abandoned by their nearest relations, lest the calamity should spread by contagion, and were left to perish alone in such misery as till then had never been known among them. But there seems to be some reason to hope that they had found out a specific cure for it, as none were seen on whom it had made a great progress; and one who went from the ship infected, returned, after a short time, in perfect health. Both Captain Cook and Mr Forster, in their relations of their voyage in the Resolution, endeavour to establish the opinion, that this scourge of licentiousness was felt in the South Sea islands, previous to any of the modern voyages that have been made thither, and that it was an indigenous disease there. But if that conclusion is well-founded, how comes it, that at all the places where the Resolution touched in 1773, which had been before visited by the Endeavour in 1769, such as New Zealand for instance, the crew, more or less, be-

came infected by their commerce with the women, and *Otaheitee.* not at all so at places which they visited, for the first time, in the Resolution?

The principal manufacture among the *Otaheiteans* ¹⁰ *Manufac-* is their cloth. This is made of the bark of trees, *tures.* which are of three kinds, viz. the Chinese mulberry-tree, or *aouta*; the bread-fruit tree, or *ooroo*; and one that is described by Dr Hawkesworth as resembling the wild fig tree of the West Indies. Of all these the paper mulberry affords the best cloth; what is made from that being both finer, softer, whiter, and better suited to take a colour; the *ooroo* produces cloth much inferior in contexture; and the last is very coarse, in colour resembling the darkest brown paper; but this last is the only kind that withstands water: (See the article BARK.)—They likewise prepare a red dye; which is made by mixing the yellow juice of a small species of fig, which the natives call *mattee*, with the greenish juice of a sort of fern or bindweed, or of several other plants, which produce a bright crimson; and this the women rub with their hands, if the piece is to be uniformly of a colour; or they make use of a bamboo reed if the piece is to be marked or sprinkled into different patterns. The colour fades very soon, and becomes of a dirty red; but notwithstanding this defect, and its being liable to be spoiled by rain, the cloth thus stained is highly valued, and is worn only by the principal inhabitants of the country. The inhabitants perfume their clothes with certain plants; concerning which, Mr Forster made all possible inquiry. Tahea, a friendly native, showed him several plants which are sometimes used as substitutes; but the most precious sort he either could not, or would not, point out: and from the account of Omai it appears, that there are no less than 14 different sorts of plants employed for this purpose.

Matting is another *Otaheitean* manufacture: and in this they are so dexterous, that they produce finer mats than any made in Europe. Rushes, grass, the bark of trees, and the leaves of a plant called *wharrou*, are the materials which they work up for this purpose. Their matting is applied to various uses: the coarser kind is employed for sleeping on in the night, or sitting on through the day; the finer sort is converted into garments in rainy weather, their cloth being soon penetrated by wet. They are very dexterous in making basket and wicker-work: their baskets are of a vast number of different patterns, many of them exceedingly neat; and the making them is an art practised by every one, both men and women.

Instead of hemp, they make ropes and lines of the bark of a tree; and thus they are provided with fishing-nets; the fibres of the cocoa-nut furnish them with thread, with which they fasten the different parts of their canoes, &c. The bark of a nettle which grows in the mountains, and is called *orawa*, supplies them with excellent fishing-lines, capable of holding any kind of fish; and their hooks are made of mother-of-pearl, to which they fix a tuft of hair, made to resemble the tail of a fish. Instead of making them bearded, the point is turned inwards. They make also a kind of seine of a coarse broad grass, the blades of which are like flags. These they twist and tie together in a loose manner, till the net, which is about as wide as a large sack, is from 60 to 80 fathoms long.

Otaheitee. This they haul in smooth shoal water; and its own weight keeps it so close to the ground, that scarcely a single fish can escape. They make harpoons of cane, and point them with hard wood; with which they can strike fish more effectually than an European can with one headed with iron.

11
Working
tools.

The tools used by the Otaheiteans for all their purposes are, an adze made of stone; a chisel or gouge made of bone, generally the bone of a man's arm between the wrist and elbow; a rasp of coral, and the skin of a sting-ray; also coral and sand, as a file or polisher: and with these they fell timber, cleave and polish it, and hew stone. The stone which makes the blade of their adzes is a kind of basalt, of a grey or blackish colour, not very hard, but of considerable toughness: they are formed of different sizes; some that are intended for felling, weigh from six to eight pounds; others that are used for carving, not more than as many ounces: but it is necessary to sharpen these rude tools almost every minute; for which purpose a cocoa-nut shell full of water and a stone are always at hand. With such tools they generally take up several days in felling a tree; but after it is down, and split into planks, they smooth them very dexterously and expeditiously with their adzes, and can take off a thin coat from a whole plank without missing a stroke.

12
Weapons.

Their weapons are slings, which they use with great dexterity; pikes headed with the skins of sting-rays; and clubs of about six or seven feet long, made of a very hard wood. Thus armed, they are said to fight with great obstinacy; and to give no quarter to man, woman, or child, who happens to fall into their hands during the battle, nor for some time afterwards, till their passion subsides. They have likewise bows and arrows; but the arrows are good for nothing except to bring down a bird, being headed only with stone, and none of them pointed. They have targets of a semi-circular form, made of wicker-work, and plaited strings of the cocoa-nut fibres, covered with glossy, bluish-green feathers belonging to a kind of pigeon, and ornamented with many shark's-teeth, arranged in three concentric circles.

13
Canoes.

Their boats or canoes are of three different sorts. Some are made out of a single tree, and hold from two to six men. These are principally employed in fishing: the others are constructed of planks very dexterously sewed together; they are of different sizes, and will hold from 10 to 40 men: they generally lash two of these together, and set up two masts between them; or if they are single, they have an on-trigger on one side, and only one mast in the middle; and in these vessels they will sail far beyond the sight of land. The third sort seems to be principally designed for pleasure or shew. These are very large, but have no sail; and in shape resemble the gondolas of Venice. The middle is covered with a large awning; and some of the people sit upon it, and some under it. The plank of which these vessels are constructed, is made by splitting a tree, with the grain, into as many thin pieces as possible. The boards are brought to the thickness of about an inch, and are afterwards fitted to the boat with the same exactness that might be expected from an expert joiner. To fasten these planks together, holes are bored with a piece of bone, fixed

into a stick for that purpose. Through these holes a kind of plaited cordage is passed, so as to hold the planks strongly together. The seams are caulked with dry rushes; and the whole outside of the vessel is painted over with a kind of gummy juice, which supplies the place of pitch.

The Otaheiteans are a very industrious people, and friendly in their dispositions; but like all other nations not fully civilized, their passions are extremely violent, and they are very fickle. The manner of singling out a man here for a chosen friend is by taking off a part of your clothing and putting it upon him. Their usual manner of expressing their respect to strangers, or to their superiors, at a first meeting, is by uncovering themselves to the middle. They have a custom of saluting those who sneeze, by saying *evaroia-t-eatoua*, "May the good eatoua awaken you," or "May not the evil eatoua lull you asleep!"

Their propensity to theft is very great, inasmuch; that M. Bougainville says, "even in Europe itself one cannot see more expert filchers than the people of this country;" and indeed, in all the voyages made by Captain Cook and others, they had abundant experience of this disposition of the natives, which often produced quarrels, and sometimes even fatal effects. In their behaviour they are extremely lascivious, almost beyond credibility. A woman of distinction who visited Mr Banks used the following ceremony on her first approach to the stranger. After laying down several young plantain-leaves, a man brought a large bundle of cloth; which having opened, he spread it piece by piece on the ground, in the space between Mr Banks and his visitants. There were in all nine pieces: having spread three pieces one upon another, the lady came forward, and, stepping upon them, took up her garments all around her to her waist; she then turned three times round, after which she dropped the veil: when other three pieces were spread, she practised the same ceremony; and so the third time, when the last three pieces were laid out; after which the cloth was again rolled up, and delivered to Mr Banks as a present from the lady, who with her attending friend came up and saluted him. From the unbridled licentiousness of these people, the French gave this island the name of the *New Cythera*. Nay, to such a degree do they carry their libidinous excesses, that a number of the principal people, it is related, have formed themselves into a society, in which every woman is common to every man. This society is distinguished by the name of *Arreoy*, the members of which have meetings from which all others are excluded. At these meetings the passions are excited by a studied course of sensuality, and the coarsest and most brutal pleasures are enjoyed by the whole company. If, however, notwithstanding these excesses, any of the female members of this community should prove with child, unless she can procure some man to adopt the child as his own, not all the strong affections of a mother, if such are not entirely eradicated by a course of life subversive of the feelings as well as the modesty of nature, can save the life of the precondemned innocent; but the child as soon as born is smothered, and the mother is left at liberty to renew her former course of execrable prostitution. Should any man be found to cooperate with a woman in saving the life of a child, they

14
Character,
manners,
&c.

Otaheitee. are both excluded for ever from the *arreoy*, and are considered as man and wife. The woman from that time is distinguished by the term *whannow-now*, "the bearer of children;" which in this part of the world only is considered as a term of reproach; and so depraved are those people, that being a member of such a society is boasted of as being a privilege, instead of being stigmatized as the foulest crime. The *arreoy*s enjoy several privileges, and are greatly respected throughout the Society Islands, as well as at Otaheitee; nay, they claim a great share of honour from the circumstance of being childless. Tupia, one of the most intelligent natives, when he heard that the king of England had a numerous offspring, declared, that he thought himself much greater, because he belonged to the *arreoy*s. That this society indulge themselves in promiscuous embraces, and that every woman is common to every man, is contradicted by Mr Forster. He says, that these *arreoy*s choose their wives and mistresses from among the prostitutes; and from this circumstance, as well as their extreme voluptuousness, they have seldom any reason to dread the intrusion of children. He had the following circumstances related to him by Omai or Omiah, one of the natives, who was brought to England. He said, that the pre-eminence and advantages which a man enjoyed as *arreoy* were so valuable as to urge him against his own feelings to destroy his child; that the mother was never willing to consent to the murder; but that her husband and other *arreoy*s persuaded her to yield up the child; and that where intreaties were not sufficient, force was sometimes made use of. But, above all, he added, that this action was always perpetrated in secret; inasmuch, that not even the *towtows* or attendants of the house were present; because, if it were seen, the murderers would be put to death.

Both men and women constantly wash their whole bodies three times a-day in running water, and are remarkably cleanly in their clothes. They are most expert swimmers, being accustomed to the water from their infancy. Captain Cook relates the following remarkable instance of their expertness. On a part of the shore where a tremendously high surf broke, inasmuch that no European boat could live in it, and the best European swimmer, he was persuaded, would have been drowned, as the shore was covered with pebbles and large stones, yet here were 10 or 12 Indians swimming for their amusement. Whenever a surf broke near them, they dived under it, and rose again on the other side. The stern of an old canoe added much to their sport. This they took out before them, and swam with it as far as the outermost breach; when two or three getting into it, and turning the square end to the breaking wave, were driven in towards the shore with incredible rapidity, sometimes almost to the beach: but generally the wave broke over them before they got half way; in which case they dived, and rose to the other side with the canoe in their hands, and swimming out with it again, were again driven back. This amazing expertness drew the Captain's attention for more than half an hour; during which time none of the swimmers attempted to come ashore, but seemed to enjoy the sport in the highest degree. At another time, one of the officers of the quarter-deck intending to drop a bead into a canoe for a little boy of six years

of age, it accidentally missed the boat, and fell into the sea; but the child immediately leaped overboard, dived after it, and recovered it. To reward him for this feat, some more beads were dropped to him; which excited a number of men and women to amuse the officers with their amazing feats of agility in the water, and not only fetched up several beads scattered at once, but likewise large nails, which, from their weight, descended quickly to a considerable depth. Some of these people continued a considerable time under water; and the velocity with which they were seen to go down, the water being extremely clear, was very surprising. Here a green branch of a tree is used as an emblem of peace, in exact conformity to the custom of the ancient nations. We shall add an extract here from Captain Cook's last voyage to the Pacific Ocean.

"Nothing could make a stronger impression at first sight, on our arrival here, than the remarkable contrast between the robust make and dark colour of the people of Tongataboo*, and a sort of delicacy and * One of the Friend-ly Islands. whiteness which distinguish the inhabitants of Otaheitee. It was even some time before that difference could preponderate in favour of the Otaheiteans; and then only, perhaps, because we became accustomed to them, the marks which had recommended the others began to be forgotten. Their women, however, struck us as superior in every respect; and as possessing all those delicate characteristics which distinguish them from the other sex in many countries. The beard which the men here wear long, and the hair, which is not cut so short as is the fashion at Tongataboo, made also a great difference; and we could not help thinking that on every occasion they showed a greater degree of timidity and fickleness. The muscular appearance, so common amongst the Friendly Islanders, and which seems a consequence of their being accustomed to much action, is lost here, where the superior fertility of their country enables the inhabitants to lead a more indolent life; and its place is supplied by a plumpness and smoothness of the skin; which though perhaps more consonant with our ideas of beauty, is no real advantage, as it seems attended with a kind of languor in all their motions, not observable in the others. This observation is fully verified in their boxing and wrestling, which may be called little better than the feeble efforts of children, if compared to the vigour with which these exercises are performed at the Friendly Islands.

"Personal endowments being in great esteem amongst them, they have recourse to several methods of improving them, according to their notions of beauty. In particular, it is a practice, especially amongst the *Arreoy*, or unmarried men of some consequence, to undergo a kind of physical operation to render them fair. This is done by remaining a month or two in the house; during which time they wear a great quantity of clothes, eat nothing but bread fruit, to which they ascribe a remarkable property in whitening them. They also speak, as if their corpulence and colour, at other times, depended upon their food; as they are obliged, from the change of seasons, to use different sorts at different times.

"The graceful air and firm step with which these people walk are not the least obvious proof of their personal accomplishments. They consider this as a thing

Otaheitee. thing so natural, or so necessary to be acquired, that nothing used to excite their laughter sooner, than to see us frequently stumbling upon the roots of trees, or other inequalities of the ground.

“ Their countenances very remarkably express the abundant mildness or good nature which they possess, and are entirely free from that savage keenness which marks nations in a barbarous state. One would, indeed, be apt to fancy that they had been bred up under the severest restrictions to acquire an aspect so settled, and such a command of their passions, as well as steadiness in conduct. But they are at the same time frank, cheerful, and good-humoured, though sometimes, in the presence of their chiefs, they put on a degree of gravity, and such a serious air, as becomes stiff and awkward, and has an appearance of reserve.

“ Their peaceable disposition is sufficiently evinced from the friendly reception all strangers have met with who have visited them. Instead of offering to attack them openly or clandestinely, as has been the case with most of the inhabitants of these seas, they have never appeared in the smallest degree hostile, but on the contrary, like the most civilized people, have courted an intercourse with their visitors by bartering, which is the only medium that unites all nations in a sort of friendship. They understand barter (which they call *fukkatou*) so perfectly, that at first we imagined they might have acquired this knowledge of it by commercial intercourse with the neighbouring islands; but we were afterwards assured, that they had little or no traffic except with Feejee, from which they get the red feathers, and some few other articles which they esteem. Perhaps no nation in the world traffic with more honesty, and less distrust. We could always safely permit them to examine our goods, and to hand them about one to another; and they put the same confidence in us. If either party repented of the bargain, the goods were re-exchanged with mutual consent and good humour. Upon the whole, they seem possessed of many of the most excellent qualities that adorn the human mind, such as industry, ingenuity, perseverance, affability, and perhaps other virtues which our short stay with them might prevent our observing.

“ The only defect fullying their character that we know of is their propensity to thieving, to which we found those of all ages and both sexes addicted, and to an uncommon degree. It should, however, be considered, that this exceptionable part of their conduct seemed to exist merely with respect to us; for in their general intercourse with one another, I had reason to be of opinion, that thefts do not happen more frequently (perhaps less so) than in other countries, the dishonest practices of whose worthless individuals are not supposed to authorize any indiscriminate censure on the whole body of the people. Great allowances should be made for the foibles of these poor natives of the Pacific Ocean, whose minds we overpowered with the glare of objects, equally new to them as they were captivating. Stealing, amongst the civilized and enlightened nations of the world, may well be considered as denoting a character deeply stained with moral turpitude, with avarice unrestrained by the known rules of right, and with profligacy producing extreme indigence, and neglecting the means of relieving it.

But at the Friendly and other islands which we visited, *Otaheitee.* the thefts so frequently committed by the natives, of what we had brought along with us, may be fairly traced to less culpable motives. They seemed to arise solely from an intense curiosity or desire to possess something which they had not been accustomed to before, and belonging to a sort of people so different from themselves. And perhaps, if it were possible that a set of beings seemingly as superior in our judgment as we are in theirs should appear amongst us, it might be doubted, whether our natural regard to justice would be able to restrain many from falling into the same error. That I have assigned the true motive for their propensity to this practice, appears from their stealing every thing indiscriminately at first sight, before they could have the least conception of converting their prize to any one useful purpose. But I believe, with us, no person would forfeit his reputation, or expose himself to punishment, without knowing before-hand how to employ the stolen goods. Upon the whole, the pilfering disposition of these islanders, though certainly disagreeable and troublesome to strangers, was the means of affording us some information as to the quickness of their intellects. For their small thefts were committed with much dexterity; and those of greater consequence with a plan or scheme suited to the importance of the objects. An extraordinary instance of the last sort was, in their attempts to carry away one of the Discovery's anchors at mid-day.

“ Their common diet is made up of at least nine-tenths of vegetable food; and I believe more particularly the *mahee*, or fermented bread-fruit, which makes part almost of every meal, has a remarkable effect upon them, preventing a costive habit, and producing a very sensible coolness about them, which could not be perceived in us who fed on animal food. And it is, perhaps, owing to this temperate course of life that they have so few diseases among them. See n° 8.

“ They only reckon five or six which might be called chronic, or national disorders; amongst which are the dropsy, and the *sesai*, or indolent swellings before mentioned, as frequent at Tongataboo. But this was before the arrival of the Europeans; for we have added to this short catalogue a disease which abundantly supplies the place of all the others, and is now almost universal. For this they seem to have no effectual remedy. The priests, indeed, sometimes give them a medley of simples, but they own that it never cures them. And yet they allow that in a few cases nature, without the assistance of a physician, exterminates the poison of this fatal disease, and a perfect recovery is produced. They say, that if a man is infected with it he will often communicate it to others in the same house, by feeding out of the same utensils, or handling them, and that, in this case, they frequently die, while he recovers; though we see no reason why this should happen. See n° 9.

“ Their behaviour on all occasions seems to indicate a great openness and generosity of disposition. Omai, indeed, who, as their countryman, should be supposed rather willing to conceal any of their defects, has often said that they are sometimes cruel in punishing their enemies. According to his representation, they torment them very deliberately; at one time tearing out small

Otaheite. small pieces of flesh from different parts; at another taking out the eyes; then cutting off the nose; and lastly, killing them by opening the belly. But this only happens on particular occasions. If cheerfulness argues a conscious innocence, one would suppose that their life is seldom sullied by crimes. This, however, I rather impute to their feelings, which, though lively, seem in no case permanent; for I never saw them in any misfortune labour under the appearance of anxiety after the critical moment was past. Neither does care ever seem to wrinkle their brow. On the contrary, even the approach of death does not appear to alter their usual vivacity. I have seen them when brought to the brink of the grave by disease, and when preparing to go to battle; but in neither case ever observed their countenances overclouded with melancholy or serious reflection. Such a disposition leads them to direct all their aims only to what can give them pleasure and ease. Their amusements all tend to excite and continue their amorous passions; and their songs, of which they are immoderately fond, answer the same purpose. But as a constant succession of sensual enjoyments must cloy, we found that they frequently varied them to more refined subjects, and had much pleasure in chanting their triumphs in war, and their occupations in peace; their travels to other islands and adventures there; and the peculiar beauties, and superior advantages of their own island over the rest, or of different parts of it over other less favourite districts. This marks that they receive great delight from music; and though they rather expressed a dislike to our complicated compositions, yet were they always delighted with the more melodious sounds produced singly on our instruments, as approaching nearer to the simplicity of their own. Neither are they strangers to the soothing effects produced by particular sorts of motion, which in some cases seem to allay any perturbation of mind with as much success as music. Of this I met with a remarkable instance. For, on walking one day about Matavai Point, where our tents were erected, I saw a man paddling in a small canoe so quickly, and looking about with such eagerness on each side, as to command all my attention. At first I imagined that he had stolen something from one of the ships, and was pursued; but on waiting patiently saw him repeat his amusement. He went out from the shore till he was near the place where the swell begins to take its rise; and, watching its first motion very attentively, paddled before it with great quickness till he found that it overtook him, and had acquired sufficient force to carry his canoe before it, without passing underneath. He then sat motionless, and was carried along at the same swift rate as the wave, till it landed him upon the beach. Then he started out, emptied his canoe, and went in search of another swell. I could not help concluding, that this man felt the most supreme pleasure, while he was driven on so fast and so smoothly by the sea; especially as, though the tents and ships were so near, he did not seem in the least to

envy, or even to take any notice of, the crowds of his countrymen collected to view them as objects which were rare and curious. During my stay, two or three of the natives came up, who seemed to share his felicity, and always called out when there was an appearance of a favourable swell, as he sometimes missed it, by his back being turned, and looking about for it. By them I understood that this exercise, which is called *ehoroee*, was frequent amongst them; and they have probably more amusements of this sort, which afford them at least as much pleasure as skating, which is the only one of ours with whose effects I could compare it."

The language of these islanders is soft and melodious: it abounds with vowels, and the pronunciation of it is easily acquired: but it was found excessively difficult to teach the natives to pronounce a single English word; probably not only from its abounding with consonants, but from some peculiarity in its structure; for Spanish and Italian words, if ending in a vowel, they pronounced with the greatest ease. A sufficient acquaintance has not been formed with it to determine whether it is copious or not; but it is certainly very imperfect, being totally without inflexion either of nouns or verbs. Few of the nouns have more than one case, and few of the verbs more than one tense. It was impossible to teach the islanders to pronounce the names of their guests. They called Captain Cook *Toote*; Mr Hicks, the first lieutenant, *Hete*, &c. and in this manner they formed names for almost every man in the ship. In some, however, it was not easy to find any traces of the original; and they were perhaps not mere arbitrary sounds formed upon the occasion, but signified words in their own language; and it seems that they could perfectly remember these appellations at the distance of four years, by their inquiries after such gentlemen as were absent on the second voyage by name. Mr Monkhouse, a midshipman, they called *Matte*, which in their language signifies *dead*; because he commanded a party that killed a man for stealing a musket. The nearest imitation they could reach of king George, was by calling him *Kibi-argo*. We have the following observations on this subject, in vol. ii. of Cook's last voyage to the Pacific Ocean: "The language of Otaheite, though doubtless radically the same with that of New Zealand and the Friendly Islands, is destitute of that guttural pronunciation, and of some consonants, with which those latter dialects abound. The specimens we have already given are sufficient to mark wherein the variation chiefly consists, and to show, that, like the manners of the inhabitants, it has become soft and soothing. During the former voyage, I had collected a copious vocabulary, which enabled me the better to compare this dialect with that of the other islands; and during this voyage I took every opportunity of improving my acquaintance with it, by conversing with Omai before we arrived, and by my daily intercourse with the natives while we now remained there (A). It

abounds

(A) See this vocabulary at the end of the second volume of Captain Cook's second voyage. Many corrections and additions to it were now made by this indefatigable inquirer; but the specimens of the language of Otaheite, already in the hands of the public, seem sufficient for every useful purpose.

Otaheitee. abounds with beautiful and figurative expressions, which, were it perfectly known, would I have no doubt put it upon a level with many of the languages that are most in esteem for their warm and bold images. For instance, the Otaheiteans express their notions of death very emphatically, by saying, "that the soul goes into darkness; or rather into night." And, if you seem to entertain any doubt, in asking the question, "if such a person is their mother?" they immediately reply with surprise, "Yes, the mother that bore me." They have one expression that corresponds exactly with the phraseology of the scriptures, where we read of the "yearning of the bowels."—They use it on all occasions, when the passions give them uneasiness, as they constantly refer pain from grief, anxious desire, and other affections, to the bowels, as its seat; where they likewise suppose all operations of the mind are performed. Their language admits of that inverted arrangement of words which so much distinguishes the Latin and Greek from most of our modern European tongues, whose imperfections require a more orderly construction, to prevent ambiguities. It is so copious, that for the bread-fruit alone, in its different states, they have above 20 names; as many for the taro root; and about 10 for the cocoa-nut. Add to this, that, besides the common dialect, they often expostulate in a kind of stanza or recitative, which is answered in the same manner."

A map of Otaheitee, engraved for Captain Cook's first voyage, was taken out, and laid before Tuahow the high admiral, without informing him of what it was; however, he immediately found it out, and was overjoyed to see a representation of his own country. He pointed out all the districts of it, naming every one of them in their order.

These people have a remarkable sagacity in foretelling the weather, particularly the quarter from whence the wind will blow. In their long voyages they steer by the sun in the day, and in the night by the stars; all of which they distinguish by separate names, and know in what part of the heavens they will appear in any of the months during which they are visible in their horizon. They also know the times of their annual appearing and disappearing, with more precision than would easily be believed by an European astronomer. Their time they seem to reckon by moons, 13 of which make a year. The day they divide into six parts, and the night into an equal number. They judge of the time of the day by the height of the sun, but they cannot ascertain the time of the night by the stars: In numeration, the greatest length they can go is 200; that is, when they have counted each of their fingers and toes ten times over. When they take the distance from one place to another, they express it by the time which is required to pass it.

The government of the Otaheiteans seems greatly to resemble the early state of the European nations under the feudal system. Their orders of dignity are *earree-rabie*, which answers to king; *earree*, baron; *manahouni*, vassal; and *towtow*, vassal. There are two kings in the island, one being the sovereign of each of the peninsulas of which it consists. Each of them is treated with great respect by all ranks, but does not appear to be invested with so much power as is exercised by the *earrees* in their own districts. When

the king, whom they called *O-Too*, made a visit to Captain Cook, the chiefs, who happened to be there before him, immediately stripped themselves in great haste. Captain Cook took notice of it; upon which they said *earree, earree*, signifying, that it was on account of *O-Too* being present; but this was the only outward token of respect they paid him, for they never rose from their seats, or made any other obeisance.

The *earrees* are lords of one or more of the districts into which each of the peninsulas is divided, and of which there are 43 in the larger one. These parcel out their territories to the *manahounis*, who superintend the cultivation of the ground. The lowest class, called *towtows*, seem to be nearly under the same circumstances with the villeins in feudal governments. They do all the laborious work, cultivate the land, catch fish, fetch wood and water, &c. Each of the *earrees* keeps a kind of court, and has a great number of attendants, chiefly the younger brothers of their own tribe; and among these some hold particular offices, but of which little more is known than some of their names.

In this country a child succeeds to his father's titles and authority as soon as he is born; and thus the king no sooner has a son born, than his sovereignty ceases. A regent is then chosen; and the father generally retains his power under that title, until his child becomes of age. The child of the baron succeeds to the titles and honours of its father as soon as it is born, as well as the son of the king; so that a baron who was yesterday called *earree*, and was approached with the ceremony of lowering their garments, so as to uncover the upper part of the body, is to-day, if his wife happens to be delivered of a child, reduced to the rank of a private man; all marks of respect being transferred to the child, if it is suffered to live, though the father still continues possessor and administrator of his estate. But the acquiescence which the lower class of people, or *towtows*, yield to the command of their chiefs, is very remarkable. They are not suffered to taste any animal food, although they are employed in feeding it for their lords. They endure patiently very severe blows, if, when collected into a large body, they in any manner press upon or annoy the king or a chief in his progress; and all this passive spirit is preserved without any power being lodged in the hands of the king to exact it; for he uses no military force, nor is even attended with body-guards.

There are but few actions which are reckoned crimes among the Otaheiteans. Adultery, however, is sometimes punished with death; but in general, the woman escapes with a severe beating, and the gallant passes unnoticed. The regulation of public justice is not confined to the magistrate; for the injured party redresses his own wrong by inflicting whatever punishment he can upon the offender: but in matters of notorious wrong, the chiefs sometimes interpose. The nobility have livery for their servants; and in proportion as the master's rank is more or less elevated, these sashes are worn higher or lower, being fastened close under the arms of the servants belonging to the chiefs, and going round the loins of those belonging to the lowest class of nobility. Several parts of the island seem to be private property, which descend to the heir of

Otaheitee. of the possessor on his death, and the descent seems to fall indifferently on man or woman. Captain Cook was of opinion, that the number of inhabitants on the whole island amounted to 204,000, including women and children. Otaheitee.

17
Religion.

The religious language of the Otaheiteans, like that of the Gentoo Bramins, is different from what is used in common discourse; but, according to the accounts we have of their notions concerning the origin of the world, nothing can be more ridiculous. They imagine that the Supreme Deity, besides a great many female descendants, has one son named *Tane*; and to him they direct their worship, though they do not believe that the good or bad conduct of mankind here on earth makes them more or less acceptable to this divinity. They believe the existence of the soul after death, and of a greater or lesser degree of happiness to be then enjoyed; but they seem to have no conception of a state of punishment or of suffering hereafter. The share of happiness which they imagine every individual will enjoy in this future state, will be assigned to him according to the rank he holds on earth. We are not, however, told wherein they suppose the happiness of this future state to consist; but it is most probably a pretty exact imitation of a Mohammedan paradise, for these voluptuaries can hardly be supposed capable of imagining any pleasure independent of the intercourse of the sexes.

The priesthood seems to be hereditary in one family or tribe; and as it is said to be numerous, probably those of that order are restrained from becoming members of the Arreoy: but whether or not any peculiar decorum is necessary to be observed, hath not yet appeared. These priests are professedly the men of science; but their knowledge is altogether frivolous and useless, for it consists in being conversant with the names of their different divinities, and such absurd traditions as have been handed down among them from one generation to another. Their religious notions being deposited in an unknown tongue, they are respected because they are not understood; and as the cure of the soul is no object of regard, the most important concern to these people, the cure of their bodies, is committed to the priests, and much parade is used in their attempts to recover the sick, though their remedies consist of ridiculous ceremonies and enchantments rather than any thing else.

The marriages of these people are merely secular contracts; but no one has a right to perform the operation of tattowing except the priests; and this being a custom universally adopted by the natives, it may be supposed that the performing it is a very lucrative employment. The males in general undergo a kind of circumcision, which it is disgraceful not to comply with, and which is likewise the exclusive privilege of the priests to perform. But what most establishes the credit of this order of men is their skill in astronomy and navigation.

Captain Cook, who had some reason to believe that, among the religious customs of this people, human sacrifices were sometimes offered up to their deities, went to a morai, or place of worship, accompanied by Captain Furneaux, having with them a sailor who spoke the language tolerably well, and several of the natives. In the morai was a tupapow, a kind of pier,

with a shed erected over it, on which lay a corpse and some provisions. Captain Cook then asked if the plantain were for the Eatua? If they sacrificed to the Eatua hogs, dogs, fowls, &c.? To all of which an intelligent native answered in the affirmative. He then asked if they sacrificed men to the Eatua? He was answered, *taato eno*, "bad men they did; first *tiparraby*, beating them till they were dead." He then asked if good men were put to death in this manner? His answer was no, only *taato eno*. The Captain then asked if any Earees were? The native replied, they had hogs to give the Eatua, and again repeated *taato eno*. He was then asked if towto ws, who had no hogs, dogs, or fowls, but yet were good men, were ever sacrificed to the Eatua? The answer still was no, only bad men. Many other questions were put to him; all his answers to which seemed to confirm the ideas that men for certain crimes were condemned to be sacrificed to the gods, provided they did not possess any property which they might give for their redemption. However, in pursuing such inquiries as these, no certain information could be obtained, on account of the slight knowledge which had been acquired of the language of the country: but according to further accounts which Captain Cook received from Onai, it seems to rest with the high-priest to single out the victims for sacrifice; who, when the people are assembled on any solemn occasion, retires alone into the house of God, and stays there for some time; when he comes out, he informs the assembly that he has seen and conversed with the great god (the high-priest alone having that privilege), and that he has asked for a human sacrifice; and tells them he has desired such a person, naming a man present, who has most probably, on some account or other, rendered himself obnoxious to this ghastly father. The words are no sooner gone out of his mouth, than the devoted wretch is put to death; for his guilt cannot be doubted, after the oracle has pronounced his doom.

On this island was seen the figure of a man constructed of basket-work, rudely made, but not ill designed: it was something more than seven feet high, and rather too bulky in proportion to its height. This wicker skeleton was completely covered with feathers, which were white where the skin was to appear, and black in the parts which it is their custom to paint or stain, as well as upon the head, which was designed to represent hair. Upon the head also were four protuberances; three in front, and one behind, which the Indians called *tate etc*, little men. The image was called *Manioe*; it was a representation of *Mauwe*, one of their Eatuas, or gods of the second class, and was said to be the only one of the kind on Otaheitee.

These people pray at sun-rise and sun-set. They have also a number of superstitious practices, in order to conciliate the influence of evil genii. E-Tee, a chief, who seemed to be the king's prime minister in 1774, very seriously asked Mr Forster whether they had a god (*Eatua*) in their country, and whether they prayed to him (*epoore*?) When he told them that they acknowledged a Divinity who had made every thing, and was invisible, and that they were accustomed to address their petitions to him, he seemed to be highly pleased, and repeated his words with comments of his own, to several persons who sat round

Otaheitee. round him; seeming thereby to intimate, that the ideas of his countrymen corresponded with theirs in this respect.

Their morais are used both as burying-grounds and places of worship; they are approached with the most wonderful expressions of reverence and humility; and this, it should seem, not because any thing there is esteemed sacred, but because they there worship an invisible being, for whom they entertain the most reverential respect, although not excited by the hope of reward or the dread of punishment. Though they do not appear to have any visible object of worship, yet, says Captain Cook, this island, and indeed the rest that lie near it, have a particular bird, some a heron, and others a kingfisher, to which they pay a particular regard, and concerning which they have some superstitious notions, respecting good or bad fortune, as we have of the swallow and robin redbreast, and will on no account molest or kill them. One of these cemeteries, or places of worship, was known to Captain Cook, on his first voyage, by the name of Tootahah's morai, then the regent; but when, on his second voyage, after the death of that chief, he called it by that name, Maratata, a chief that accompanied the party, interrupted him, intimating, that it was no longer Tootahah's after his death, but was then known as O-Too's morai, the then reigning prince. A fine moral for princes! daily reminding them of mortality whilst they live, and teaching them, that after death they cannot call even that ground their own which their dead corpse occupies! The chief and his wife, on passing by it, took their upper garments from their shoulders. From hence it should seem, that the royal family have a particular morai, and that it always bears the name of the reigning prince.

18
Funerals.

An Indian, who had snatched away a musket from a sentry whilst on duty, was, by the inhumanity of a midshipman who commanded the guard, pursued and shot. The unhappy fate of this poor fellow gave an opportunity for seeing the manner in which these people treat their dead. They placed the corpse in the open air till the bones became quite dry: a shed was erected close by the house where the deceased had resided; it was about 15 feet long, and eleven broad; one end was left quite open; the other end, and the two sides, were partly inclosed with a sort of wicker-work. The bier was a frame of wood, like that on which the sea-beds, called *cots*, are placed, with a matted bottom, and supported by four posts, at the height of about four feet from the ground. The body was covered first with a mat, and then with white cloth; by the side of it lay a wooden mace, one of their weapons of war; and near the head of it, which lay next to the close end of the shed, lay two cocoa-nut shells; at the other end a bunch of green leaves, with some dried twigs, all tied together, were stuck in the ground, by which lay a stone about as big as a cocoa-nut. Near these lay one of the young plantain-leaves that are used for emblems of peace, and close by it a stone ax. At the open end of the shed also hung, in several strings, a great number of palm-nuts; and without the shed was stuck up in the ground a stem of a plantain-tree, about six feet high, upon the top of which was placed a cocoa-nut shell full of fresh water; against the side of one of the posts hung a small bag,

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Otaheitee. containing a few pieces of bread-fruit ready roasted, which had not been put in all at one time, some being fresh, and others stale. This minute examination of their manner of treating their dead, seemed to be very unwelcome to the natives. The food so placed by the corpse is designed as an offering to their gods. They cast in, near the body, small pieces of cloth, on which the tears and blood of the mourners have been shed; for in their paroxysms of grief it is an universal custom to wound themselves with a shark's tooth. The mourner is always a man; and he is dressed in a very singular habit. When the bones are stripped of their flesh, and become dry, they are buried. This regard to their dead is very remarkable: one of the ship's company happening to pull a flower from a tree which grew on one of their sepulchral inclosures, an Indian came suddenly behind him and struck him; and a party of sailors, who were sent to get some stones for ballast for the ship, had like to have been embroiled with the natives, by pulling down some part of an inclosure of this kind. This shade under which their dead are laid is called *tupapaw*; the inclosure in which their bones are deposited is called *morai*; these latter, as has been already related, are also places of worship. As soon as a native of Otaheitee is known to be dead, the house is filled with relations, who deplore their loss; some by loud lamentations, and some by less clamorous, but more genuine expressions of grief. Those who are in the nearest degree of kindred, and are really affected by the event, are silent; the rest are one moment uttering passionate exclamations in a chorus, and the next laughing and talking without the least appearance of concern. In this manner the remainder of the day on which they assemble is spent, and all the succeeding night. On the next morning the body is shrouded in their cloth, and conveyed to the sea-side on a bier, which the bearers support upon their shoulders, attended by the priest, who having prayed over the body repeats his sentences during the procession. When it arrives at the water's edge, it is set down upon the beach; the priest renews his prayers, and taking up some of the water in his hands, sprinkles it towards the body, but not upon it. It is then carried back 40 or 50 yards; and soon after brought again to the beach, where the prayers and sprinkling are repeated. It is thus removed backwards and forwards several times; and while these ceremonies have been performing, a house has been built, and a small space of ground railed in. In the centre of this house, or *tupapaw*, as they term it, posts are set up to support the bier, which is at length conveyed thither, and placed upon it; and here the body remains to putrify, till the flesh is wholly wasted from the bones. These houses of corruption are of a size proportioned to the rank of the person whose body they are to contain. Those allotted to the lower class are just sufficient to cover the bier, and have no railing round them. The largest that was seen was 11 yards long; and such are ornamented according to the abilities and inclination of the surviving kindred, who never fail to lay a profusion of good cloth about the body, and sometimes almost cover the outside of the house. Garlands of the fruit of the palm-nut, or pandanus, and cocoa-leaves, twisted by the priests in mysterious knots, with a plant called by them *ethee na morai*, which is

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Otaheitee. particularly consecrated to funeral solemnities, are deposited about the place; provision and water are also left at a little distance. As soon as the body is deposited in the tupapow, the mourning is renewed. The women assemble, and are led to the door by the nearest relation, who strikes a shark's tooth several times into the crown of her head; the blood copiously follows, and is carefully received upon pieces of linen, which are thrown under the bier. The rest of the women follow this example; and the ceremony is repeated at the interval of two or three days, as long as the zeal and sorrow of the parties hold out. The tears also which are shed upon these occasions, are received upon pieces of cloth, and offered as oblations to the dead. Some of the younger people cut off their hair, and that is thrown under the bier with the other offerings. This custom is founded on a notion, that the soul of the deceased, which they believe to exist in a separate state, is hovering about the place where the body is deposited; that it observes the actions of the survivors, and is gratified by such testimonies of their affectionate grief. Whilst these ceremonies are carrying on by the women, the men seem to be wholly insensible of their loss; but two or three days after, they also begin to perform a part. The nearest relations take it in turn to assume the dress, and perform the offices.

The chief mourner carries in his hand a long flat stick, the edge of which is set with shark's teeth; and in a frenzy, which his grief is supposed to have inspired, he runs at all he sees, and if any of them happen to be overtaken, he strikes them most unmercifully with his indented cudgel, which cannot fail to wound them in a dangerous manner. The processions continue at certain intervals for five moons; but are less and less frequent, by a gradual diminution, as the end of that time approaches. When it is expired, what remains of the body is taken down from the bier; and the bones, having been scraped and washed very clean, are buried, according to the rank of the person, either within or without a morai. If the deceased was an earee, or chief, his skull is not buried with the rest of his bones, but is wrapped up in fine cloth, and put in a kind of box made for that purpose, which is also placed in the morai. This coffin is called *ewaharre no te oremetua*, "the house of a teacher, or master." After this the mourning ceases, except some of the women continue to be really afflicted at the loss, and in that case they will suddenly wound themselves with the shark's tooth wherever they happen to be. The ceremonies, however, do not cease with the mourning; for prayers are still said by the priest, and offerings made at the morai. Some of the things, which from time to time are deposited there, are emblematical: a young plantain is said to represent the deceased, and a bunch of feathers the Deity who is invoked. The priest places himself overagainst the symbol of the god, accompanied by some of the relations, who are furnished with a small offering: he repeats his orison in a set form, consisting of separate sentences; at the same time weaving the leaves of the cocoa-nut into different forms, which he afterwards deposits upon the ground where the bones have been interred: the Deity is then addressed by a shrill screech, which is used only upon that occasion. When

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the priest retires, the tuft of feathers is removed, and the provisions are left to putrify, or be devoured by the rats. *Otaheitee.*

This ceremony of mourning, as described above, was performed by Tiropé, one of the wives of Tubourai Tamaide; who, when the bleeding from the wounds which she had thus given herself ceased, looked up with a smile on the company round her, and who had before inquired of her, very earnestly, the cause of her behaviour, without receiving any answer, or having been at all noticed by her. She then began to pick up some small pieces of cloth which she had spread to catch the blood; and having got them all together, she went to the shore, and threw them into the sea. She then plunged into the river; and having washed her whole body, returned to the company as cheerful as ever. To add to the singularity of this conduct, the Indians who stood round her all the time that this frantic distress was performing, conversed with great indifference and jocularly.

There is not a more ancient custom handed down to us than that of cutting the body to express grief and distress of mind. In the code of laws delivered by Moses to the Israelites, 1400 years before the Christian era, this practice is expressly forbidden to that people: "Ye shall not cut yourselves, or make any baldness between the eyes for the dead," Deut. xiv. 1. Hence it may be supposed that this rite prevailed in Egypt, from whence the Jews derived most of those propensities which were inhibited by their great legislator. We are told likewise in the book of Kings, of the priests of Baal wounding themselves, after they had long waited in vain for the supernatural intervention of their idol. D'Arvieux informs us, that the modern Arabs retain the same custom, and that the part they chiefly wound is their arms. The difference in the practice as now prevailing in O-Taheitee and Arabia seems to be, that in the first none but the women make use of it, and in the latter it is confined to the men, and generally used to express their desperate passion for some favourite mistress.

The mourning which is worn here is an head-dress of feathers, the colour of which is consecrated to death, and a veil over the face. This dress is called *eeva*. The whole nation is said to appear thus on the death of their king. The mourning for fathers is very long. The women mourn for their husbands, but not the husbands for their wives.

We shall conclude this account of Otaheitee with the history of Omai, or, as he is improperly called *O-miah*, who was brought over to England. He was a native of Ulietea, or Raietea; and embarked at Huahine with Captain Furneaux, on board the *Adventure*, in September 1773; and the two ships separating in a storm on the coast of New Zealand a few months afterwards, the voyage of the *Adventure* was brought to a much earlier conclusion than that of the *Resolution*, for she arrived at Spithead the 14th of July following. This youth is said to have had some property in his native soil, of which he was dispossessed by the people of Bolabola: but he was not one of the earees, or gentry of that country, but of the middling class of people. He was eminent neither for figure, shape, nor complexion; his colour being of a deep hue, resembling a towtow, or one of the common

4 A

people;

Otaheitee. people; and both Captain Cook and Mr Forster agree in thinking him no proper sample of the inhabitants of those islands, in respect of personal beauty. However, they are both of opinion, that the qualities of his heart and head resembled those of his countrymen in general, and that no one of the natives would have given more general satisfaction by his behaviour whilst he remained in England. He is described as possessing a good understanding, quick parts, and honest principles: not an extraordinary genius like Tupia; yet not at all deficient in intelligence, which appears from his knowledge of the game of chess, in which he made an amazing proficiency. His principal patrons, whilst in England, were, the Earl of Sandwich, Mr Banks, and Doctor Solander. His noble patron introduced him to his Majesty at Kew; and, during his stay in England, he was caressed by many of the principal nobility. He naturally imitated that easy and elegant politeness which is prevalent among the great, and which is one of the ornaments of civilized society. Indeed he adopted the manners, the occupations, and amusements of his companions in general, and gave many proofs of a quick perception and a lively fancy. He appears, however, to have been treated, whilst he resided here, rather as a fashionable exhibition, than as a rational being. No attention seems to have been paid to the enriching his mind with useful knowledge, such as might have rendered him a valuable acquisition to his country on his return thither; no means were used to instruct him in agriculture, or any mechanical art or useful manufacture; and, above all, to possess him with a moral sense; to teach him the exalted ideas of virtue, and the sublime principles of revealed religion. After a stay of two years in England, and having been inoculated for the small-pox, he embarked with Captain Cook, on board the Resolution, on his return home, loaded with a profusion of presents. At parting with his friends here, his tears flowed plentifully, and his whole behaviour bespoke him to be sincerely affected at the separation: but though he lived in the midst of amusements during his residence in England, his return to his native country was always in his thoughts; and tho' he was not impatient to go, he expressed a satisfaction as the time of his return approached.

Such is the account of this people which our limits permit us to give. In the history of mankind it is not without importance; and in the hands of the philosopher, the moralist, or the divine, it may be useful. The subject, because but new, has been much agitated, and is pretty generally known. Such of our readers as make men and manners their peculiar study, will be anxious for further information; we must refer them, however, to those authors who have written particularly and copiously on the subject. Cook and other voyagers of eminence will at least command attention. We may just remark, that there must surely be something extremely fascinating in the persons, manners, or customs of the inhabitants, or in the soil and appearance of the country, that could tempt the greater part of a ship's crew to resist authority, and forcibly to return to Otaheitee; yet such we know was the case: and the sufferings of the commander, and those who refused to join in this vile conspiracy, and who were

therefore exposed in an open boat, were indeed shocking. An account of it has been lately published.

OTALGIA, the **EAR-ACH**, in medicine. See there n° 80. and 364.

OTELANDS, or **OATLANDS**, in England, in the county of Surry, near Weybridge, was formerly a royal palace, wherein Henry duke of Gloucester, third son to king Charles I. was born; and had a deer-park, which in the late civil wars was by the parliamentarians laid open, and the house demolished. In 1673 there was a brick-wall remaining, which encompassed ten acres; but there were then small traces of the chief pile, besides the gardener's lodge, wherein was the silk-worm room raised by King James I.'s queen. It is now a most magnificent building, and commands a most extensive prospect, which words cannot describe. In the park there was a paddock, where Queen Elizabeth used to shoot with a cross bow. It is now the property of his royal highness the Duke of York, who purchased it for 43,000 l. of the duke of Newcastle, 1789.

OTFORD, in England, in the county of Kent, by the Darent, at the bottom of a hill. In 793 there was a battle at this place between the two Saxon kings, Offa of Mercia and Alrick of Kent, who was killed by Offa; and another in 1016, wherein the Danish king Canute was routed by King Edmund Ironside. The said Offa, to atone for the blood he had shed in that battle, first gave this place to Christ-church, Canterbury (as the deed says), *in pasqua porcorum*, "for the support of the archbishop's hogs;" and so it remained in the archbishop's liberty, till exchanged with King Henry VIII. for other lands. There was a chantry founded at the Ryehouse in this parish. The church was once a chapel to Shoreham.

OTHNIEL, in sacred history, the son of Kenaz, of the tribe of Judah. We are told (Josh. xv. 17.), that Othniel was brother to Caleb; and (Judges i. 13.) it is expressly said, that he was Caleb's younger brother. There are, however, some difficulties in this; for if Caleb and Othniel had been brothers, the latter could not have married his niece Achsah the daughter of Caleb. Secondly, the scripture never assigns to Caleb and Othniel the same father: it always names Kenaz as father to Othniel, and Jephunneh as the father of Caleb. Lastly, Caleb must be much older than Othniel, since he gave Othniel his daughter Achsah in marriage. Thus it seems much better to suppose Kenaz and Jephunneh to be two brothers, and that Othniel and Caleb were cousin-germans, and in this sense to be nearly related, or brothers according to the language of scripture. Thus Achsah being but second cousin in respect of Othniel, he might marry her without doing any thing contrary to the letter of the law.

Caleb having received his portion in the mountains of Judah, in the midst of a country that was possessed by giants of the race of Anak, after he had taken the city of Hebron, he advances towards Debir, otherwise called *Kirjath-sepher*, and declares that he would give his daughter Achsah in marriage to him that should take *Kirjath-sepher*. Othniel took it, and had Achsah to wife.

After the death of Joshua, the Israelites not giving themselves the trouble to exterminate the Canaanites that

Otagia

Othniel.

Otho, that were then in the land, and not having continued in their fidelity to the Lord, he delivered them over to Chusban-rushathaim king of Mesopotamia (Judges iii. 4, &c.), to whom they continued in subjection for eight years. Then they cried to the Lord, who raised them up a deliverer in the person of Othniel the son of Kenaz, who was filled with the spirit of God, and judged Israel. He came into the field, and gave battle to Chusban-rushathaim, beat him, and delivered Israel in the year of the world 2599; and the country was at rest for 40 years. After this Othniel died; but the precise year of his death is not known.

OTHO (M. Salvius), a Roman emperor, born A. D. 32, of a family descended from the ancient kings of Etruria. He was among the number of Nero's favourites, and accordingly was raised to the highest offices of the state, and made governor of Pannonia by the interest of Seneca, who wished to remove him from Rome, lest Nero's love for Poppæa should prove his ruin. After Nero's death Otho conciliated the favour of Galba the new emperor; but when he did not gain his point, and when Galba refused to adopt him as his successor, he resolved to make himself absolute, without any regard to the age or dignity of his friend. The great debts which he had contracted encouraged his avarice; and he procured the assassination of Galba, and made himself emperor. He was acknowledged by the senate and the Roman people; but the sudden revolt of Vitellius in Germany rendered his situation very precarious, and it was mutually resolved that their respective right to the empire should be decided by arms. Otho obtained three victories, but in a general engagement near Brixellum his forces were defeated, and he stabbed himself when all hopes of success had vanished. This happened about the 37th year of his age, after a reign of about three months. It has been justly observed, that the last moments of Otho's life were those of a philosopher. He comforted his soldiers who lamented his fortune, and he expressed his concern for their safety when they earnestly solicited to pay him the last friendly offices before he stabbed himself; and he observed, that it was better that one man should die than that all should be involved in ruin on account of his obstinacy. His nephew was much affected, and feared exceedingly the anger and haughtiness of the conqueror; but Otho comforted him, and observed, that Vitellius would be kind and affectionate to the friends and relations of Otho, since Otho was not ashamed to say, that in the time of their greatest enmity the mother of Vitellius had received every friendly treatment from his hands. He also burnt the letters which, by falling into the hands of Vitellius, might provoke his resentment against those who had favoured the cause of an unfortunate general. These noble and humane sentiments in a man who was the associate of Nero's shameful pleasures, and who had stained his hand in the blood of his master, have appeared to some wonderful, and have passed for the features of policy, and not of a naturally virtuous and benevolent heart. His father was a favourite of Claudius.

Otho, a tribune of the people, who, in Cicero's consulship, made a regulation to permit the Roman knights at public spectacles to have the 14 first rows

after the seats of the senators. This was opposed with virulence by some, but Cicero ably defended it, &c.

OTHO (Venius), a very celebrated Dutch painter. He was descended of a considerable family in Leyden, and was born in 1556. He was carefully educated by his parents in the belles lettres, and at the same time learned to design of Isaac Nicholas. He was but 15 when the civil wars obliged him to leave his country. He retired to Liege, finished his studies, and there gave the first proofs of the excellence of his mind. He was well known to Cardinal Groosbeck, who gave him letters of recommendation when he went to Rome, where he was entertained by Cardinal Maduccio. His genius was so active, that he applied himself to philosophy, poetry, mathematics, and painting, all at once. He became a great proficient in designing under Frederico Zuchero. He acquired an excellence in all the parts of painting, especially in the knowledge of the *claro-obscuro*; by which means he came to be accounted one of the most ingenious men of his age. He lived at Rome seven years, during which time he performed several rare pieces; and then passing into Germany, was received into the service of the emperor. After this the duke of Bavaria and the elector of Cologne employed him; but all the advantages he got from the courts of foreign princes could not detain him there. He had a desire to return into the Low Countries, of which Alexander Farnese, prince of Parma, was then governor. He drew the prince's picture, armed *cap-à-pée*, which confirmed his reputation in the Netherlands. After the death of that prince, Venius returned to Antwerp, where he adorned the principal churches with his paintings. The archduke Albert, who succeeded the prince of Parma in the government of the Low Countries, sent for him to Brussels, and made him master of the mint; a place which occupied much of his time, yet he found some time for the exercise of his profession. He drew the archduke and the infanta Isabella's portraits at large, which were sent to James I. of Great Britain; and, to show his knowledge of polite learning likewise, he published several treatises, which he embellished with cuts of his own designing. Louis III. made him very great offers to tempt him into his service; but he would never leave his own country, satisfying himself with the character and employments he held there. He was the first, after Polydore Caravaggio, who reduced the *claro-obscuro* to a principle of the art of painting. Rubens perfected what he began, and the whole Flemish school learned it of him. Venius died at Brussels, 1634, in his 78th year. He had two brothers, Gilbert, who was a graver, and Peter a painter. He had also the honour of breeding up the famous Rubens in his art.

OTHONNA, in botany: A genus of the *polygamia necessaria* order, belonging to the *syngenesia* class of plants; and in the natural method ranking under the 49th order, *Compositæ*. The receptacle is naked; there is almost no pappus; the calyx is monophyllous, multifid, and nearly cylindrical.

OTHRYADES, one of the 300 Spartans who fought against 300 Argives, when those two nations disputed their respective right to Thyreata. Two Argives, Alcinoor and Cronius, and Othryades, survived

Otis,
Otley.

the battle. The Argives went home to carry the news of their victory; but Othryades, who had been reckoned among the number of the slain on account of his wounds, recovered himself, and carried some of the spoils of which he had stripped the Argives into the camp of his countrymen; and after he had raised a trophy, and had written with his own blood the word *vici* on his shield, he killed himself, unable or unwilling to survive the death of his countrymen.

OTIS, in ornithology, a genus of birds belonging to the order of grallæ. There are four species, principally distinguished by their colour. One of the species, the tarda, or bustard, is the largest of the British land-fowl; the male at a medium weighing 25 pounds; there are instances of some very old ones weighing 27: The breadth nine feet; the length near four. Besides the size and difference of colour, the male is distinguished from the female by a tuft of feathers about five inches long on each side of the lower mandible. Its head and neck are ash-coloured: the back is barred transversely with black and bright rust colour: the greater quill-feathers are black: the belly white: the tail is marked with broad red and black bars, and consists of twenty feathers: the legs dusky.

The female is about half the size of the male: the crown of the head is of a deep orange, traversed with black lines; the rest of the head is brown. The lower part of the fore-side of the neck is ash-coloured: in other respects it resembles the male, only the colours of the back and wings are far more dull.

These birds inhabit most of the open countries of the south and east parts of this island, from Dorsetshire, as far as the Wolds in Yorkshire. They are exceeding shy, and difficult to be shot; run very fast, and when on the wing can fly, though slowly, many miles without resting. It is said that they take flight with difficulty, and are sometimes run down with grehounds. They keep near their old haunts, seldom wandering above 20 or 30 miles. Their food is corn and other vegetables, and those large earth-worms that appear in great quantities on the downs before sun-rising in the summer. These are replete with moisture, answer the purpose of liquids, and enable them to live long without drinking on those extensive and dry tracts. Besides this, nature hath given the males an admirable magazine for their security against drought, being a pouch, whose entrance lies immediately under the tongue, and which is capable of holding near seven quarts; and this they probably fill with water, to supply the hen when sitting, or the young before they can fly. Bustards lay only two eggs, of the size of those of a goose, of a pale olive-brown, marked with spots of a dark colour; they make no nest, only scrape a hole in the ground. In autumn they are (in Wiltshire) generally found in large turnip-fields near the Downs, and in flocks of 50 or more.

OTLEY, a town of England, in the West Riding of Yorkshire, under a cliff called *Chevin*, on the south side of the river Wharfe. The adjacent parts are reckoned the most delightful in England. Its church has lately been elegantly fitted up, in which are several good old monuments. The adjacent country is much improved, and from the Chevin is a most beautiful view of an extensive scope of undescribed mansions.

This manor was given by Athelstan to the see of York, whose archbishop had a palace here, with several extensive privileges. There is a free grammar-school in this place, founded by Mr Cave, 1611, called *Prince Henry's School*. In 1673, it suffered much by an inundation; which carried away several bridges, mills, &c. as well as much corn, &c.

OTODINI, ancient Britons, seated, as some suppose, to the north-east of the Brigantes, in the countries now called Northumberland, Merse, and the Lothians. As the Otodini are not mentioned by any of the Roman historians, but only by Ptolemy, it is uncertain whether they formed a distinct independent state, or were united with the Brigantes. They were, however, a considerable people, and possessed a long tract of the sea-coast, from the river Tine to the Firth of Forth. Their name is derived by Baxter from the old British words *Ot o dineu*, which signify "a high and rocky shore;" descriptive enough of their country. They were probably reduced by Agricola at the same time with their more powerful neighbours the Brigantes; but as they lived without the wall of Severus, they were, like the rest of the *Mæatae*, engaged in frequent revolts. In the most perfect state of the Roman government in this island, the country of the Otodini made a part of the Roman province called Valentia; which comprehended all that large tract between the two walls. As this province was never long together in the peaceable possession of the Romans, they had but few stations in the country of the Otodini, except those on the line of the wall of Severus.

Various authors have derived the name of this people in various ways, and it is very differently spelled; and various opinions still seem to be entertained among the learned respecting their real situation: and it is even doubtful whether their country was in England or in Scotland. The celebrated Drummond of Hathornden contends for the latter.

OTRANTO, or TERRA D'OTRANTO, a province of Italy in the kingdom of Naples; bounded on the north by the Terra di Bari and by the gulph of Venice, on the east by the same gulph, and on the south and west by a great bay which is between that and the Basilicata. It is a mountainous country, abounding in figs, olives, and wine. It is often visited by locusts, and by Algerine pirates, who carry off all the people they can catch into slavery. But to keep them off, there are a great many forts on the coasts.

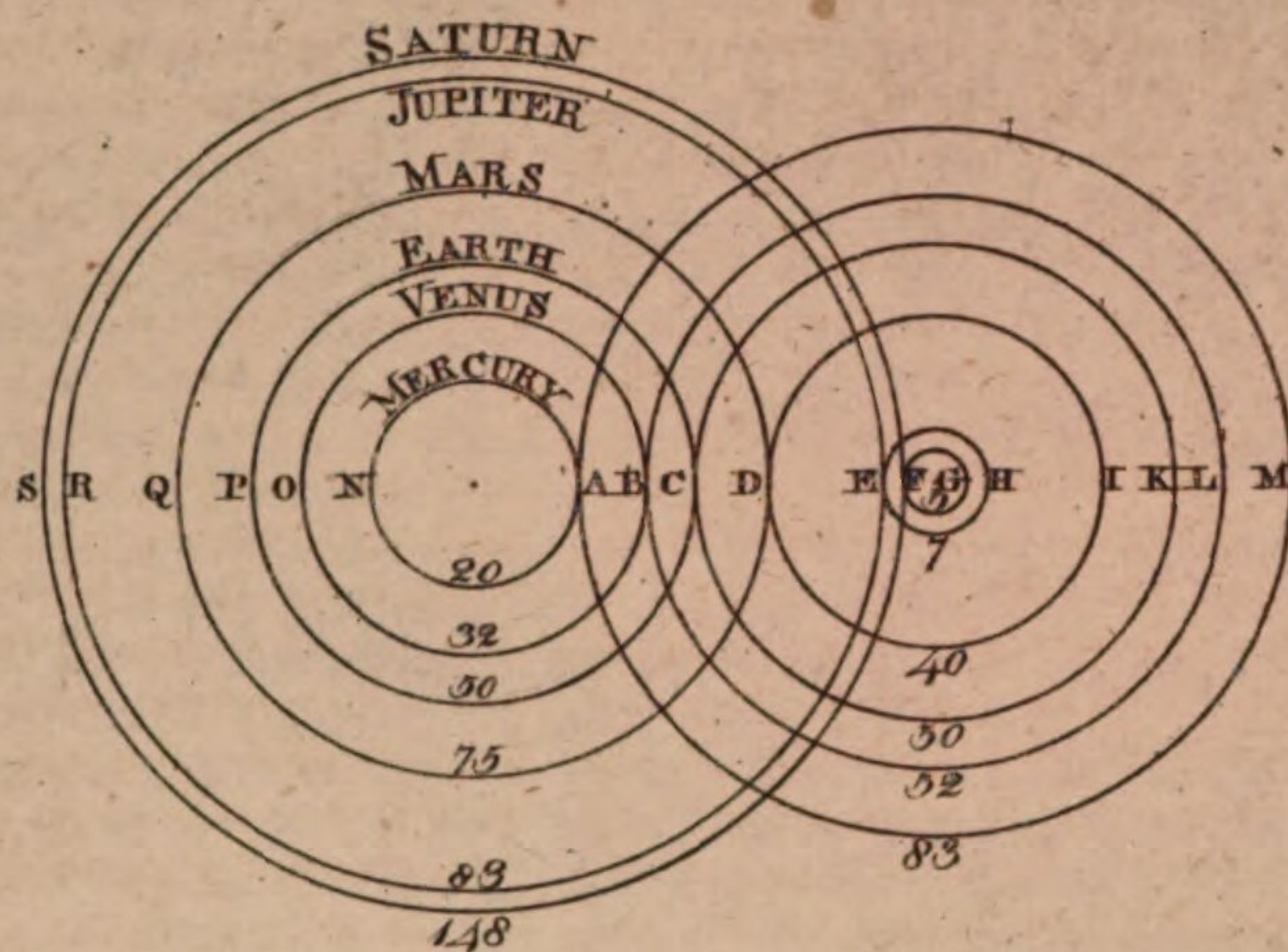
OTRANTO, a city of Italy, in the kingdom of Naples, and capital of the province of the same name, with a commodious harbour, an archbishop's see, and a strong citadel where the archbishop resides. Mr Swinburne* gives this account of it: "It is (says he) small, stands on a hill, and contains only 3000 inhabitants. Its little harbour is not so bad but it might induce more people to settle here, as no port on the coast lies so convenient for traffic with Greece. The Adriatic gulph is here but 60 miles wide. I climbed to the top of a tower, to get a sight of the Acroceraunian mountains; but a vapour hanging over the sea, along the horizon, hid them from my view: in a clear morning, their snowy tops are said to be very visible. The cathedral of Otranto is Gothic, and, according to the Puglian fashion, has its subterraneous sanctuary. The columns are of beautiful marble and granite; the

Otodini,
Otranto.

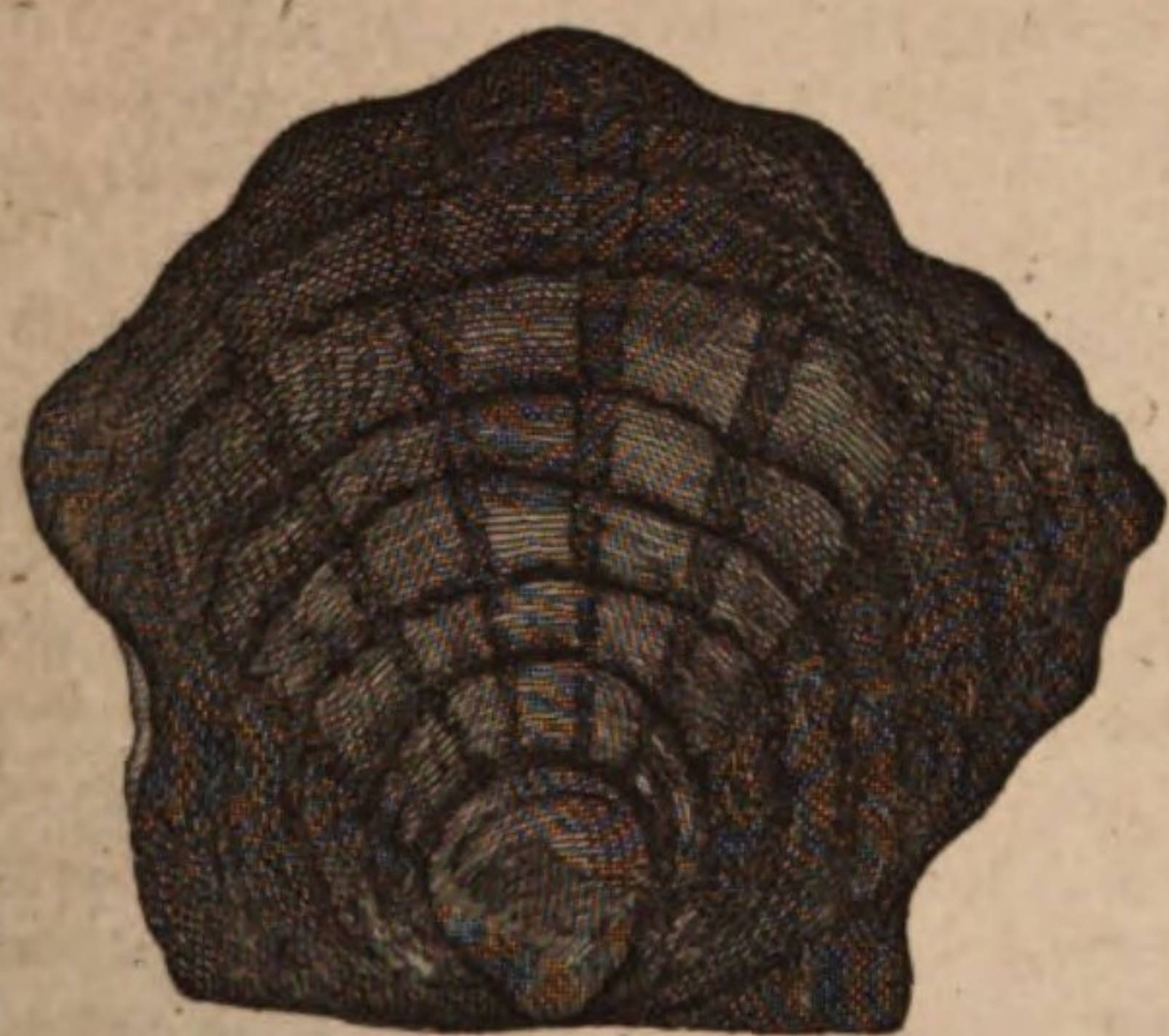
Henry's
Hist. Gr.
Brit. vol. 1.
p. 185, &c.

* Travels
in the two
Sicilies,
vol. 1.

Plate
seclxix.



Ostrea Ehippium.



Otis Tarda.



Ostrea Edulis.



Otranto
||
Ottery.

the pavement, a rude species of mosaic, commonly called *Saracenic*: As it is to be met with in all churches founded by the Norman kings of Sicily, the artists who laid it were probably Saracens, or at least Greeks, their scholars. These mosaics are composed of pieces of porphyry, serpentine, and cubes of gilt glass,—disposed in stars, circles, or chequers. The compartments of the stalls are bordered with them; and the small twisted columns, which support the pulpits and canopies, are ornamented with a spiral stripe of the same work. It is a pity so much durability, compactness, and beauty of materials, should have been lavished on such barbarous designs. Otranto was a Roman colony, as is certified by an inscription, almost the only monument of antiquity left there (A). In the 10th century it was made an archbishop's see. In 1480, Laurence de Medici, to deliver himself from the attacks of the king of Naples, persuaded Mahomet II. to invade the realm; and Otranto was the unfortunate place where the Turks landed. It was invested, stormed, and pillaged. Its prelate was slain at the door of his church; 800 principal citizens dragged out of the gates and butchered; their bodies left 12 months unburied, till the duke of Calabria retook the city, and committed them to hallowed earth. About 100 years after, a devout person affirmed, that these bones had appeared to him in a dream; and, upon the strength of his vision, they became, for the vulgar, objects of almost equal veneration with the relicks of the primitive martyrs."

OTRICOLI, a small town of Italy, in the ecclesiastic state, and in the duchy of Spoleto, in E. Long. 13. 15. N. Lat. 42. 25. situated on a rising ground on the frontiers of the patrimony of St Peter. From this town is seen a fine plain, and some of the windings of the famous river Tiber. The ruins that are scattered here and there at the entrance of the plain, descending from Otricoli, are thought to be the remains of the ancient Otriculum; they consist of some shapeless fragments of columns, cornices, and other pieces of marble. In the middle of the great street of Otricoli, there is a marble pedestal, upon which you see an inscription, showing they had erected a statue to Julia Lucilla, who had built public baths at Otricoli at her own expence.

OTTER, in zoology. See *MUSTELA*.

OTTER of *Roses*. See *ROSES*.

OTTERBURN, in England, in the county of Northumberland, near Elledon. It was the field of battle between the English and Scots in 1388, wherein Henry Percy, called *Hotspur*, was taken prisoner, and Douglas the Scotch general was killed. On this battle was founded the delightful old ballad of Chevy-chase; the village being situated by the river Rhead, on the south side of the Cheviot hills. The entrenchments are still visible; and a number of tumuli scattered over the adjacent ground mark to future ages the slaughter made there.

OTTERY, ST MARY'S, a market town in Devonshire, situated 159 miles west of London, and 10 miles east of Exeter. Its market is on Tuesdays, and it has

two fairs. The church is very ancient, and somewhat resembles a cathedral. A very extensive woollen manufactory was lately established here by Sir Geo. Yonge and Sir John Duntze, barts. It has no corporation. It derived its name, as some suppose, from the river Otter, and that from the otters formerly found in it. This town was given by king Edward the Confessor to the church of St Mary at Rouen in Normandy; but was afterwards bought by Grandison bishop of Exeter; who made of it a quarter college in 10 Edward III. and therein placed secular priests, with other ministers, to whom he gave the whole manor, parish, tythes, fines, spiritual profits, &c. which amounted to L. 304 : 2 : 10 yearly.

OTWAY (Thomas), an eminent tragic poet, was the son of Mr Humphry Otway, rector of Wolbeding in Suffex; and was born at Trotton in that county on the 3d of March 1651. He was educated at Oxford; when, leaving the university without a degree, he retired to London, where he commenced player, but with indifferent success. However, the sprightliness of his conversation gained him the favour of Charles Fitz-Charles earl of Plymouth, who procured him a cornet's commission in one of the new-raised regiments sent into Flanders; but he returned from thence in very necessitous circumstances, and applied himself again to writing for the stage. In comedy he has been deemed too licentious; which, however, was no great objection to his pieces in the profligate days of Charles II. But, in tragedy, few English poets have ever equalled him; and perhaps none ever excelled him in touching the passions, particularly the tender passion. There is generally something familiar and domestic in the fable of his tragedies, and there is amazing energy in his expression.—The heart that doth not melt at the distresses of his Orphan must be hard indeed! But though Otway possessed in so eminent a degree the rare talent of writing to the heart, yet he was not very favourably regarded by some of his cotemporary poets, nor was he always successful in his dramatic compositions. After experiencing many reverses of fortune in regard to his circumstances, but generally changing for the worse, he at last died wretchedly in a public-house on Tower-hill; whither, it is supposed, he had retired, in order to avoid the pressure of his creditors. Some have said, that downright hunger compelling him to fall too eagerly on a piece of bread, of which he had been for some time in want, the first mouthful choaked him, and instantly put a period to his days. Dr Johnson gives this account of the matter: "He died in a manner which I am unwilling to mention. Having been compelled by his necessities to contract debts, and hunted, as is supposed, by the terriers of the law, he retired to a public-house on Tower-hill, where he died of want; or, as it is related by one of his biographers, by swallowing, after a long fast, a piece of bread which charity had supplied. He went out, as is reported, almost naked, in the rage of hunger, and finding a gentleman in a neighbouring coffee-house, asked him for a shilling. The gentleman gave him a guinea; and Otway

Otway.

(A) "Num. Hydr.—ÆR. Caput barb. & laureat. ΤΑΡΟΝΤΙΝΟΝ. = Tridens, cum duobus delphinibus."

●val
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Oudenarde

way going away bought a roll, and was choaked with the first mouthful. All this, I hope, is not true; but that indigence, and its concomitants sorrow and despondency, brought him to the grave, has never been denied."

Johnson speaks of him in nearly these terms: Otway had not much cultivated versification, nor much replenished his mind with general knowledge. His principal power was in moving the passions, to which Dryden in his latter years left an illustrious testimony. He appears, by some of his verses, to have been a zealous royalist; and had what was in those times the common reward of loyalty; he lived and died neglected—His dramatic writings are nine in number; the most admired of which are, *The Orphan* and *Venice Preserved*. He had also made some translations, and wrote several miscellaneous poems. His whole works are printed in two pocket-volumes. He wrote four acts of a play which are lost.

OVAL, an oblong curvilinear figure, otherwise called *ellipsis*. (See ELLIPSIS). However, the proper oval, or egg-shape, differs considerably from that of the ellipsis, being an irregular figure, narrower at one end than at another: whereas the ellipsis, or mathematical oval, is equally broad at each end: though it must be owned, these two are commonly confounded together; even geometricians calling the oval a *false ellipsis*.

OVARY, in anatomy, that part of a female animal wherein the ova or eggs are formed or lodged. See ANATOMY, n^o 108. p. 740.

OVARIUM, in botany, a name by which botanists who are fond of assimilating the animal and vegetable kingdoms have distinguished the germen or seed-bud, as containing the rudiments of the future seed.

OVATION, in the Roman antiquity, a lesser triumph, allowed to commanders for victories won without the effusion of blood; or for defeating a mean and inconsiderable enemy. The show generally began at the Albanian mountain, whence the general with his retinue made his entry into the city on foot, with many flutes or pipes sounding in concert as he passed along, and wearing a garland of myrtle as a token of peace. The term *ovation*, according to Servius, is derived from *ovis*, a "sheep;" because on this occasion the conqueror sacrificed a sheep, as in triumph he sacrificed a bull. The senate, knights, and principal plebeians, assisted at the procession; which concluded at the Capitol, where rams were sacrificed to Jupiter. The first ovation was granted to Publius Posthumus the consul for his victory over the Sabines in the 253d year of Rome.

OUDENARDE, a rich and strong town of the Austrian Netherlands, in the province of Flanders, in E. Long. 3. 30. N. Lat. 50. 54. fifteen miles south of Ghent, and eighteen from Tournay. It is a large well fortified town, having a very considerable fort in the middle of it, situated on the river Scheldt, which divides it into two parts. It is almost encompassed by meadows, only there is a hill which commands it on the south side. The buildings are pretty good, and the streets wide and handsome. The market-place is adorned with a beautiful town-house, and a fine large fountain. There are several good churches and monasteries well worthy of the notice of travellers. The

town has a very flourishing trade in fine linen and tapestry, and is the capital of a castellany, which contains 33 villages. The French laid siege to it in 1708, which brought on an obstinate engagement, wherein they were defeated by the allies under the command of the duke of Marlborough. It was besieged by the French again in 1744, and taken in a few days; but they restored it at the last general peace.

OUDRI (Jean Baptiste), a painter, was born at Paris, and died there May 1. 1755, aged about 74. He acquired the principles of his art under the celebrated Largillieres; and from this master he had those sure principles of colouring which he communicated at a meeting of the academy of painting, of which he was a member, and one of the professors. Oudri's superior talent for painting animals is well known: his compositions of this kind are full of truth, and are admirably handled. The Fables of la Fontaine have been engraved in 4 vols folio from his etchings; but those who finished them possessed not equal abilities. He painted several hunting-pieces for the king, which adorn some of the royal castles, among others that of La Meute. Oudri was so well acquainted with the magic of his art, that he frequently pleased himself with painting white objects on white grounds; and these pictures have a good effect. He would likewise have succeeded in history-painting, as we may easily infer from several pieces which do him honour. He superintended the manufactory of Beauvais, where pieces of tapestry were produced equally brilliant with the pictures which had served for their model. The king gave him a pension, and apartments in the Louvre.

OVERALL (John), a celebrated English bishop, was born in 1559; and, after a proper foundation in grammar learning, was sent to St John's college, Cambridge, and was elected a scholar of that society: but afterwards removing to Trinity, was chosen fellow of that college. In 1596 he was made regius professor of divinity, when he took the degree of D. D. and about the same time was elected master of Catherine-hall. In 1601 he was raised to the deanry of St Paul's, London, by the recommendation of his patron Sir Fulk Greville, and Queen Elizabeth; and in the beginning of King James's reign, he was chosen prolocutor of the lower house of convocation. In 1612 he was appointed one of the first governors of the Charter-house hospital, then just founded by Thomas Sutton, Esq. In April 1614 he was made bishop of Litchfield and Coventry; and in 1618 he was translated to Norwich, where he died in May 1619, aged, as it is reported, 60 years. He was buried in that cathedral, where he lay unnoticed and forgotten till some time after the restoration of Charles II. when Cosin, bishop of Durham, who had been his secretary, erected a monument in 1669, with a Latin inscription, in which he is said to be, "Vir undequaque doctissimus, et omni encomio major."

Wood observes, that he had the character of being the best scholastic divine in England; and Cosin, who perhaps may be thought to rival him in that sort of learning, calls himself his scholar, and absolutely says that he derived all his knowledge from him. He is also celebrated by Smith for his distinguished wisdom, erudition, and piety. In the controversy which

Oudri,
Overall

Overall.
Overbury.

in his time divided the reformed churches about predestination and grace, he held a middle opinion, inclining perhaps to Arminianism. He seems indeed to have paved the way for the reception of that doctrine in England, where it was generally embraced a few years afterwards, chiefly by the authority and influence of Archbishop Laud. Overall cultivated a particular friendship with Gerard Vossius and Grotius; and was much grieved to see the love of peace, and the projects of this last great man to obtain it, so ill repaid. He laboured heartily himself to settle the differences in Holland, upon what is known by the name of the *Quinquarticular controversy*; as appears in part by his letters to the two learned correspondents just mentioned, some of which are printed in the *Epistola præstantium virorum*, &c.

The bishop is known in England chiefly by his *Convocation Book*, of which Bishop Burnet gives the following account: "This book was wrote on the subject of government, the divine institution of which was very positively asserted. It was read in convocation, and passed by that body, in order to the publishing of it; in opposition to the principles laid down in the famous book of Parsons the Jesuit, published under the name of *Doleman*. But King James did not like a convocation entering into such a theory of politics; so he discouraged the printing of it, especially since, in order to justify the owning of the United Provinces, who had lately thrown off the Spanish yoke, to be a lawful government, it was laid down, that when a change of government was brought to a thorough settlement, it was then to be owned and submitted to as a work of the providence of God. Here it slept, till Archbishop Sancroft, who had got the book into his own hands, and not observing the last-mentioned passage in it, resolved to publish it in the beginning of King William's reign, as an authentic declaration the church of England had made in the point of non-resistance. Accordingly it was published in 4to, as well as licensed, by him, a very few days before he was under suspension for not taking the oaths."

OVERBURY (Sir Thomas), a learned and worthy English gentleman, was born in 1581; and studied at Queen's college, Oxford, after which he removed to the Middle-temple, London. He afterwards travelled for some time, and returned a most accomplished person; when he contracted an intimate acquaintance with Sir Robert Carr, knight of the bath, who being soon after taken into his majesty's favour, had Mr Overbury knighted at Greenwich. Sir Thomas perceiving the familiarity which subsisted between his patron Carr, now made viscount Rochester, and the lady Frances, the wife of Robert earl of Essex, was so much displeased at it, that he endeavoured to dissuade him from keeping her company, and from proceeding in the base design he had formed of having her first divorced from her husband, and then marrying her. The viscount, resenting this honest advice, told what he had said to the lady, who was as remarkable for her wickedness as for her beauty; on which they immediately resolved on his destruction. About this time, the king wanting to send an ambassador abroad, the viscount recommended Sir Thomas Overbury. His majesty approving the choice, the viscount im-

parted the king's intentions to Sir Thomas; but, under a treacherous show of friendship, dissuaded him from accepting of that employment, as it might hinder him from a better way of advancement; promising that he would prevent his majesty from being displeased at his refusal. The viscount then went to the king, and artfully incensing his majesty against Sir Thomas for refusing to obey his commands, that gentleman was committed to the Tower for his contempt, on the 21st of April 1613, where he continued till he was dispatched by poison on the 15th of September following, and his body was interred in the Tower-chapel the same day. About two years after, the whole contrivance of his death was discovered. On this several persons were condemned and executed; but though Carr, earl of Somerset, and the lady Frances his countess, were condemned to death for contriving the murder, and hiring the persons who were concerned in it, the king only banished them from court, and afterwards pardoned them. Sir Thomas Overbury wrote several poems, &c. and an account of his travels.

His character is represented by an historian of those times; who, after relating the occasion and circumstances of his death, proceeds in the following terms: "In this manner fell Sir Thomas Overbury, worthy of a longer life and a better fate; and, if I may compare private men with princes, like Germanicus Cæsar, both by poison procured by the malice of a woman, both about the 33d year of their age, and both celebrated for their skill and judgment in poetry, their learning, and their wisdom. Overbury was a gentleman of an ancient family, but had some blemishes charged upon his character, either through a too great ambition, or the insolence of a haughty temper. — After the return from his travels, the viscount Rochester embraced him with so entire a friendship, that, exercising by his majesty's special favour the office of secretary provisionally, he not only communicated to Sir Thomas the secrets, but many times gave him the packets and letters unopened, before they had been perused by the king himself: which, as it prevailed too much upon his early years, so as to make him, in the opinion of some, thought high and ambitious; yet he was so far from violating his trust and confidence, that he remains now one example among others who have suffered in their persons or their fortunes for a freedom of advice, which none but sincere friends will give, and which many are such ill friends to themselves as not to receive."

OVEN, a kind of domestic furnace, used for baking bread, pies, tarts, &c. of a circular structure, with a very low roof, well lined, both on the top, bottom, and sides, with stone; it has a small entrance in the front, which is exactly fitted by a kind of door, which being clapped to the mouth of the oven confines the heat, while bread, pies, or puddings, are baking. Over this, pastry-cooks, &c. have another oven built much in the same manner, which is used for such things as require a less degree of heat. Ovens are heated by burning dry wood, faggots, &c. in them, till all the parts are equally hot.

OVER-HAULING, the act of opening and extending the several parts of a tackle, or other assemblage of ropes, communicating with blocks or dead eyes. It is used

Overbury
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Over-haul-
ing.

Over-hauling used to remove those blocks to a sufficient distance from each other, that they may be again placed in a state of action, so as to produce the effect required.

Oughtred. *OVER-Hauling*, is also vulgarly expressed of an examination or inspection into the condition of a person or thing.

OVER-Rake, among seamen: When a ship riding at anchor so overbeats herself into an high sea, that she is washed by the waves breaking in upon her, they say the waves over rake her.

OVER-Reach, in FARRIERY. See there, § xl. 2.

OVERSMAN, in Scots law, a person appointed by arbiters, or by the parties submitters, to determine the matter submitted, in case the parties disagree in their opinion.

OVERT, the same with **OPEN**: Thus an overt act signifies an act which, in law, must be clearly proved; and such is to be alleged in every indictment for high treason.

OVERTURE, or **OUVERTURE**, opening or pre-luding: a term used for the solemnities at the beginning of a public act or ceremony; an opera, tragedy, comedy, concert of music, &c.—The overture of the theatre or scene, is a piece of music usually ending with a fugue: the overture of a jubilee is a general procession, &c.

OVERYSSEL, so named from its situation beyond the river Yssel, one of the Seven United Provinces; bounded on the east by the bishopric of Munster, on the north by Friesland and the territory of Groningen, on the west by the river Yssel, and on the south by the county of Zutphen and the bishopric of Munster. It is divided into three distinct parts; which are the territories of Drense, Twente, and Salland. There are many morasses in this province, and but few inhabitants, in comparison of the rest. Its greatest riches consist in turfs; which are dug up here, and sent to the neighbouring provinces, particularly Holland. It extends near 60 miles in length from north to south, and 40 in breadth from east to west. The whole country is low and marshy; but it produces a tolerable quantity of corn. It was formerly a dependence of the bishopric of Utrecht, before Henry of Bavaria, bishop of that see, transferred the sovereignty of it to the emperor Charles V.

OVIEDA, in botany: A genus of the angiospermia order, belonging to the didynamia class of plants; and in the natural method ranking under the 40th order, *Perfonate*. The calyx is quinquefid; the tube of the corolla almost cylindrical above, and very long; the berry globose and dispermous.

OVIEDO, a town of Spain, and capital of Asturias d'Oviedo, with a bishop's see, and an university; seated at the confluence of the rivers Ove and Deva, which form the Asta, 50 miles north-west of Leon, and 208 north-west of Madrid. W. Long. 5. 47. N. Lat. 43. 23.

OUGHTRED (William), an eminent mathematician, was born at Eton in 1573, and educated in the school there, whence he was elected to King's-college in Cambridge, of which he afterwards became fellow. Being admitted to holy orders, he left the university about the year 1603, and was presented to the rectory of Aldbury, near Guildford in Surry; and about the year 1628 was appointed by the earl of Arundel to

instruct his son in the mathematics. He kept a correspondence by letters with some of the most eminent scholars of his time, upon mathematical subjects; and the most celebrated mathematicians of that age owed most of their skill to him, whose house was full of young gentlemen that came from all parts to receive his instruction. It is said, that, upon hearing the news of the vote at Westminster for the restoration of King Charles II. he expired in a sudden transport of joy, aged 88. He wrote, 1. *Clavis Mathematica*; which was afterwards published in English. 2. A description of the double horizontal dial. 3. *Opuscula Mathematica*; and several other works. He left also behind him a great number of papers upon mathematical subjects, which are now in the museum of William Jones, Esq; F. R. S.

David Lloyd, in his Memoirs, has given the following short character of him: "That he was as facetious in Greek and Latin, as solid in arithmetic, geometry, and the sphere of all measures, music, &c. exact in his style as in his judgment; handling his tube and other instruments at 80 as steadily as others did at 30; owing this, as he said, to temperance and archery; disciplining his people with plain and solid truths, as he did the world with great and useful arts; advancing new inventions in all things but religion, which, in its old order and decency, he maintained secure in his privacy, prudence, meekness, simplicity, resolution, patience, and contentment."—He had one son, whom he put an apprentice to a watchmaker, and wrote a book of instructions in that art for his use.

OVID, or *Publius Ovidius Naso*, a celebrated Latin poet of the Augustan age, was a Roman knight, born at Sulmo, in the 43d year before the Christian era. He studied rhetoric under Aurelius Fuscus, and for some time frequented the bar. His progress in the study of eloquence was great, but the father's expectations were frustrated; his son was born a poet, and nothing could deter him from pursuing his natural inclination to write poetry, though he was often reminded that Homer lived and died in the greatest poverty. Every thing he wrote was expressed in poetical numbers, as he himself says, *Et quod tentabam scribere versus erat*. A lively genius and a fertile imagination soon gained him admirers: the learned became his friends; Virgil, Propertius, Tibullus, and Horace, honoured him with their correspondence, and Augustus patronized him with the most unbounded liberality. These favours, however, were but momentary; for after having obtained the esteem of Augustus, he incurred his displeasure, and was banished to Tomos, a city on the Pontus Euxinus, near the mouth of the Danube, when he was 50 years of age. The true cause of this sudden exile is unknown. Some attribute it to a shameful amour with Livia the wife of Augustus, while others suppose that it arose from the knowledge which Ovid had of the unpardonable incest of the emperor with his daughter Julia. These reasons are indeed merely conjectural; the cause was of a very private and very secret nature, of which Ovid himself is afraid to speak. It was, however, something improper in the family and court of Augustus, as these lines seem to indicate:

Cur aliquid vidi? Cur noxia lumina feci?

Cur imprudenti cognita culpa mihi est?

Inscius

Ovid.

*Inscius Aëdon vidit sine veste Dianam,
Præda fuit canibus non minus ille suis.*

Again,

*Inscia quod crimen viderunt lumina pleæor,
Peccatumque oculos est habuisse meum.*

And in another place,

*Perdiderunt cum me duo crimina, carmen & error,
Alterius facti culpa silenda mihi est.*

In his banishment, Ovid betrayed his pusillanimity in a great degree; and however affected and distressed his situation was, yet the flattery and impatience which he showed in his writings are a disgrace to his pen, and lay him more open to ridicule than to pity. Though he prostituted his pen and his time to adulation, yet the emperor proved deaf to all intreaties, and refused to listen to his most ardent friends at Rome who wished for his return. Ovid, who really wished for a Brutus to deliver Rome of her tyrannical Augustus, still continued his flattery even to meanness; and when the emperor died, he was so mercenary as to consecrate a small temple to the departed tyrant on the shore of the Euxine, where he regularly offered frankincense every morning. Tiberius proved as regardless as his predecessor to the intreaties which were made for the poet, and he died in the seventh or eighth year of his banishment, in the 57th year of his age. He was buried at Tomos. In the year 1508 of the Christian era, the following epitaph was discovered at Stain, in the modern kingdom of Austria.

*Hic situs est vates quem Divi Caesaris ira
Augusti patria cedere jussit humo.*

*Sæpe miser voluit patriis occumbere terris,
Sed frustra! Hunc illi fata dedere locum.*

This, however, is an imposition to render celebrated an obscure corner of the world, which never contained the bones of Ovid. The greatest part of his poems are remaining. His *Metamorphoses*, in 15 books, are extremely curious, on account of the great variety of mythological facts and traditions which they relate, but they can have no claim to epic honours. In composing this the poet was more indebted to the then existing traditions, and to the theogony of the ancients, than the powers of his own imagination. His *Fasts* were divided into 12 books, like the constellations in the zodiac, but of these six are lost; and the learned world have reason to lament the loss of a poem which must have thrown so much light upon the religious rites and ceremonies, festivals and sacrifices, of the ancient Romans, as we may judge from the six that have survived the ravages of time and barbarity. His *Tristia*, which are divided into five books, contain much elegance and softness of expression; as also his *Elegies* on different subjects. The *Heroides* are nervous, spirited, and diffuse; the poetry is excellent, the language varied, but the expressions are often too wanton and indelicate, a fault which is very common with him. His three books *Amorum*, and the same number *de Arte Amandi*, with the other *de Remedio Amoris*, are written with peculiar elegance, and contain many flowery descriptions; but the doctrine which they hold forth is dangerous, and they are to be read with caution, as they seem to be calculated to corrupt the heart, and to sap the very foundations of virtue and

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morality. His *Ibis*, which is written in imitation of a poem of Callimachus of the same name, is a satirical performance. Besides these, there are extant some fragments of other poems, and among these part of a tragedy called *Medea*. The talents of Ovid as a dramatic writer have been disputed, and some have remarked that he who is so often void of sentiment was not born to shine as a tragedian. He has attempted, perhaps, too many sorts of poetry at once. On whatever he has written, he has totally exhausted the subject. He everywhere paints nature with a masterly hand, and adds strength even to vulgar expressions. It has been judiciously observed, that his poetry after his banishment from Rome was destitute of that spirit and vivacity which we admire in those which were written before. His *Fasts* are perhaps the best written of all his poems; and after them we may fairly rank his love verses, his *Heroides*, and after all his *Metamorphoses*, which were not totally finished when Augustus banished him. His *Epistles from Pontus* are the language of a weak and fordid flatterer. However critics may have cause to censure the indelicacy and the inaccuracies of Ovid, it is to be acknowledged that his poetry contains great sweetness and elegance, and, like that of Tibullus, charms the ear and captivates the mind.—Another person of the name of OVID accompanied his friend Cæsonius, when banished from Rome by Nero.

OVIEDO (John Gonsalvez de), born at Madrid about the year 1478, was educated among the pages of Ferdinand king of Arragon and Isabella queen of Castile; and happened to be at Barcelona in 1493, when Christopher Columbus returned from his first voyage to the island Haiti, which he called Hispaniola, and which now goes by the name of St Domingo. He formed an intimate acquaintance with Columbus and his companions, and was at pains to inform himself of every thing relating to the new discoveries. He rendered such essential service to Spain during the war of Naples, that Ferdinand determined to send him to the island of Haiti, as intendant and inspector general of the trade of the New World. The ravages which the venereal disease had made during that war, induced him to inquire into what were the most efficacious remedies for this malady, which was supposed to have come from the West Indies. His inquiries were extended to every thing which regards the natural history of these regions; and, on his return to Spain, he published *Summario de la Historia general y natural de las Indias Occidentales*, which he dedicated to Charles V. He afterwards made some additions to this work, which he published under the title of *La Historia general y natural de las Indias Occidentales*; Salamanca, 1535, folio. It was translated into Italian, and afterwards into French; Paris, 1556, folio. In this work, Oviedo says that the French pox is endemical in the island of Haiti, and that it has passed from thence into Europe. He greatly extols the use of the wood of guaiacum for the cure of this disease; but whether the disease is now become more obstinate, or the remedy does not possess that efficacy which is ascribed to it, it is at present in little estimation.

OVILIA, or SEPTA, in ancient Rome, a place in the Campus Martius, at first raised in like a sheep-pen, whence its name. Afterwards it was mounted with

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marble,

Ovid

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Ovilia.

Oviparous, marble, and beautified with walks and galleries, as also with a tribunal, or seat of justice. Within this precinct or inclosure, the people were called to give their suffrages for the election of magistrates. The ascent into the ovilia was not by stairs, but by pontes, or narrow boards, laid there for the occasion; on which account *de ponte dejici*, signified "to be deprived of the privilege of voting;" and persons thus dealt with were called *de pontani*.

OVIPAROUS, a term applied to such animals as bring forth their young from eggs; as birds, insects, &c.

OVIS, the SHEEP, in zoology, a genus of the mammalia class, and of the order of Pecora; the characters of which are these: The horns are concave, turned backwards, and full of wrinkles; there are eight fore-teeth in the under-jaw, and no dog-teeth. The wool of these animals is only a congeries of very long and slender hairs, oddly twisted and contorted, and variously interwoven with one another. This, as far as is yet known, is a clothing peculiar to the sheep kind, no other animal having been seen to possess it. It is not, however, the clothing of all the species of sheep, some that are found in distant nations having short hair like that of the goat.

Plate CCCLXX. Linnaeus enumerates three species, which are perhaps only varieties, viz. 1. The *ovis aries*, or ram-sheep, the horns of which are shaped like a half moon, and compressed. 2. The *ovis Guineensis*, or Guinea sheep, which has pendulous ears, lax hairy dewlaps, and a prominence on the hind part of the head. The wool is short like that of a goat. It is, as its name imports, a native of Guinea. And, 3. The *ovis strepsiceros*, or Cretan sheep, which has strait cariated horns, twisted in a spiral manner, and is a native of Mount Iola. According to Mr Pennant, the last two are to be reckoned only varieties.

The sheep, unquestionably a mild and gentle creature, is also represented by Buffon as the most stupid, defenceless, and timid of all quadrupeds; inasmuch that, without the assistance of man, it could never, he thinks, have subsisted or continued its species in a wild state.

Buff. Nat. Hist. vol. III. p. 463.

"The female is absolutely devoid of every art and of every mean of defence. The arms of the ram are feeble and awkward. His courage is only a kind of petulance, which is useless to himself, incommensurable to his neighbours, and is totally destroyed by castration. The wedder is still more timid than the ram. It is fear alone that makes sheep so frequently assemble in troops: upon the smallest unusual noise, they run close together; and these alarms are always accompanied with the greatest stupidity. They know not how to fly from danger, and seem not even to be conscious of the hazard and inconvenience of their situation. Wherever they are, there they remain obstinately fixed; and neither rain nor snow can make them quit their station. To force them to move or to change their route, they must be provided with a chief, who is taught to begin the march: the motions of this chief are followed, step by step, by the rest of the flock. But the chief himself would also continue immovable, if he were not pushed off by the shepherd, or by his dog, an animal which perpetually watches over their safety, which defends, directs, separates, as-

sembles, and, in a word, communicates to them every movement necessary to their preservation.

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"Of all quadrupeds, therefore, sheep are the most stupid, and derive the smallest resources from instinct. The goat, who so greatly resembles the sheep in other respects, is endowed with much more sagacity. He knows how to conduct himself on every emergency: he avoids danger with dexterity, and is easily reconciled to new objects. But the sheep knows neither how to fly nor to attack: however imminent her danger, she comes not to man for assistance so willingly as the goat; and, to complete the picture of timidity and want of sentiment, she allows her lamb to be carried off, without attempting to defend it, or showing any marks of resentment. Her grief is not even expressed by any cry different from that of ordinary bleating."

The annotator upon this article in the Edinburgh translation of Buffon, denies the above to be the natural character of the animal. "All tame animals (he observes) lose a portion of that sagacity, dexterity, and courage, which they are obliged to employ against their enemies in a wild state; because they have been long accustomed to rely upon the protection of man. Sheep, when enslaved by men, tremble at the voice of the shepherd or his dog. But, on those extensive mountains where they are allowed to range without controul, and where they seldom depend on the aid of the shepherd, they assume a very different mode of behaviour. In this situation, a ram or a wedder boldly attacks a single dog, and often comes off victorious. But when the danger is of a more alarming nature, like man, they trust not to the prowess of individuals, but have recourse to the collected strength of the whole flock. On such occasions, they draw up into one compact body; they place the young and the females in the centre; and the strongest males take the foremost ranks, keeping close by each others sides. Thus an armed front is presented on all quarters, which cannot be attacked without the greatest hazard of destruction. In this manner, they wait, with firmness and intrepidity, the approach of the enemy. Nor does their courage fail them in the moment of attack. For, if the aggressor advances within a few yards of the line, the ram darts upon him with such impetuosity, as lays him dead at their feet, unless he saves himself by flight. Against the attacks of single dogs, or foxes, they are, when in this situation, perfectly secure. Besides, a ram, regardless of danger, often engages a bull, and never fails to conquer him; for the bull, by lowering his head, without being sensible of his defenceless condition, receives between his horns the stroke of the ram, which usually brings him to the ground.

"In the selection of food, few animals discover greater sagacity than the sheep; nor does any domestic animal show more dexterity and cunning in its attempts to elude the vigilance of the shepherd, and to steal such delicacies as are agreeable to its palate. When perfectly tamed, and rendered domestic, the sportive gambols and troublesome tricks of the animal, are too well known to require any description."

As to the accusations contained in the latter part of the character above quoted, every person, it is observed,

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Ibid. p. 466.
notes.

ved, who has attended to those animals, at least in this country, must know that they are not altogether just. "Individuals, in a state of subjection, seem to have no idea of resisting the attacks of an enemy. But they soon learn that their protection lies in the shepherd or his dog: for, when it becomes necessary, in Britain, to watch the folds, in order to prevent assaults from foxes or dogs, upon the first alarm the whole flock run with violence to the place where the watchmen are stationed; so that, when they chance to sleep, they are often hurt by the sheep trampling upon them. On other occasions, they never choose to make a very close approach either to men or dogs; but the sense of immediate danger makes them forget their usual timidity, and their sagacity teaches them where their safety lies. When the female is robbed of her lamb, she bleats in a manner that strongly marks the anguish she feels. In the eagerness of her search, her eye-balls seem to start from their sockets; and her irregular and distracted motions, joined to the violence and constancy of her bleatings, are evident indications of the most pungent grief."

Ibid. p. 467.
&c.

"These animals (continues the Count in the same captious style as before), so simple and dull in their intellect, are likewise very feeble in their constitution. They cannot continue long in motion. Travelling weakens and extenuates them. When they run, they pant, and soon lose their breath. The ardour of the sun is equally incommodious to them as moisture, frost, and snow. They are subject to many diseases, most of which are contagious. A redundancy of fat often kills them, and always renders the ewes barren. They bring forth with difficulty; frequently miscarry, and require more care than any other domestic animal."

Ibid. p. 468.
notes.

To which the annotator answers, "This is unquestionably another exaggeration. The sheep, when nearly in a wild state, is a robust, active animal, and capable of enduring much fatigue without injury. But, when immersed in luxury, and pampered in rich pastures, like creatures of a higher nature, the sheep becomes overloaded with fat, and contracts diseases which are not natural to him: besides, no tamed animal requires or receives less assistance in bringing forth its young, for in those parts of Britain where the best sheep are bred, they are never housed, nor, during the lambing season, have any thing administered to them but their ordinary pasture. When in health, sheep have no occasion for water: in our northern climates, it is even injurious to them."

On the whole, many of Buffon's observations and assertions on this article appear to be hasty, and, we presume, very ill founded. Respecting sheep, the learned Count seems to have been strangely misinformed, or grossly prejudiced. We esteem him as a great and an ingenious man, but we do not think that the celebrity of a name can add strength to weakness, or make that be taken for granted on a bare assertion which wants proof, or which is contrary to experience, the boasted guide of modern philosophers. The *objections* and *accusations* of this great naturalist

are well obviated by his learned translator. The great error of Buffon seems to lie in his considering sheep in a domestic state, and as they exist among us, without any reference to them in a state of nature, and without supposing or allowing their existence in such a state (A). That he was wrong in this respect, a very little reflection will convince us; and indeed his translator has shown it in a very ample manner, by recurring to facts, which is the only legitimate way of reasoning upon this or any subject of this nature. To set this matter in a still stronger point of view, however, we shall give the following account of the Siberian *argali*, or wild sheep, as it appeared in the 16th volume of a periodical work intitled *the Bee*; being extracted by a correspondent from the works of the celebrated naturalist Dr Pallas, who has paid particular attention to this part of his profession.

This accurate observer "found the *ovis fera*, or wild sheep, in all its native vigour, boldness, and activity, inhabiting the vast chain of mountains which run through the centre of Asia to the eastern sea, and the branches which it sends off to Great Tartary, China, and the Indies. This wild animal, which our learned naturalist declares to be the *mufion* of Pliny, and the *ophion* of the Greeks, is called *argali* by the Siberians, which means wild sheep; and by the Russians *kammenoi barann*, or sheep of the rocks, from its ordinary place of abode. It delights in the bare rocks of the Asiatic chain just mentioned, where it is constantly found basking in the sun; but it avoids the woods of the mountains, and every other object that would intercept the direct rays of the glorious luminary. Its food is the Alpine plants and shrubs it finds amongst the rocks. The *argali* prefers a temperate climate, although he does not disdain that of Asiatic Siberia, as he there finds his favourite bare rocks, sunshine, and Alpine plants; nay, he is even found in the cold eastern extremity of Siberia and Kamtschatka, which plainly proves that nature has given a most extensive range to the sheep in a wild state, equal even to what she has given to man, the lord of the creation; a fact that ought to make us slow in believing the assertions not uncommon, which tend to prove the sheep a local animal; or at least that it must be confined to certain latitudes, to possess it in all its value.

"The *argali* loves solitude, or possibly perfect liberty, and therefore flees the haunts of all-subduing man; hence it gradually abandons a country in proportion as it becomes peopled, if no unsurmountable obstacle obstructs its flight; insomuch that Dr Pallas thinks that nothing but the surrounding sea can account for the wild sheep being found in an inhabited island, as is sometimes the case. The ewe of the *argali* brings forth before the melting of the snow. Her lamb resembles much a young kid; except that it has a large flat protuberance in place of horns, and that it is covered with a woolly hair, frizzled, and of a dark grey. There is no animal so shy as the *argali*, which it is almost impossible to overtake on such ground

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(A) In his account of sheep this is literally true, though, for the purpose of supporting a favourite hypothesis, he does mention the *argali*, or, as he calls it, *mufion*; and asserts that it is the parent of all the domestic varieties: but this, in our opinion, only makes his observations in this place more unaccountable at least, if not inconsistent. See below note (c).

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ground as it keeps to. When pursued, it does not run straight forward, but doubles and turns like a hare, at the same time that it scrambles up and over the rocks with wonderful agility. In the same proportion that the adult argali is wild and untameable, the lamb is easily tamed when taken young, and fed first on milk, and afterwards on fodder, like the domestic sheep, as has been found on numerous experiments made in the Russian settlements in these parts.

"This animal formerly frequented the regions about the upper Irtysh, and some other parts of Siberia, where it is no longer seen since colonies have been settled in these countries. It is common in the Mongolian, Songarian, and Tartarian mountains, where it enjoys its favourite solitude or liberty. The argali is found likewise on the banks of the Lena, up as high as 60 degrees of north latitude; and it propagates its species even in Kamtschatka, as noticed before. The argali is also found in the mountains of Persia, and is said to obtain in the Kuril islands in great size and beauty. It purges itself in the spring (like all the domestic varieties of the sheep, when left at liberty to follow their instinct) with acrid plants of the anemone kind, till milder plants spring up, and shrubs begin to sprout, which with Alpine plants constitute its usual food. It likewise frequents the salt marshes which abound everywhere in Siberia; and even licks the salt efflorescence that rises on the ground, a regimen that fattens them up very quickly, and fully restores the health, vigour, and flesh they had lost during winter, and during the purging course, which, together with the restorative, is by the Almighty so wonderfully dictated to the sheep species, whether in a wild or tame state, if left to roam at large where the necessary plants are to be found." Here, then, we have a variety of the sheep species, which by some indeed, and by Dr Pallas among others, is thought to be the parent of all our domestic varieties, and which lives and propagates without any aid from man, and which on all occasions carefully shuns him. That it is the parent sheep we are not convinced; that being an opinion which requires proof, and better proof than we presume the abettors of it are able to produce.

Having given a figure of this animal (see Plate CCCLXXI), we shall add the following description of it, taken likewise from the Bee. The argali is about the height of a small hart, but its make is much more robust and nervous. Its form is less elegant than that of the deer, and its legs and neck shorter. The male is larger than the female, and every way stouter. Its head resembles that of a ram, with long straggling hairs about the mouth; but no beard. Its ears are rather smaller than those of a ram. The horns are exactly represented in the plate; they weigh in an adult sometimes 16 pounds. The tail is very short. The summer-coat consists of short hair, sleek, and resembling that of a deer. The winter-coat consists of

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wool like down, mixed with hair everywhere an inch and an half long at least, concealing at its roots a fine woolly down, generally of a white colour. The colour of its coat was in general of a dark greyish brown, with white tips to the longer hairs, and consisted of hair mixed with wool, of a dark iron grey. By accounts lately received from the Tchutski, the argali is found of a white colour on the continent of America, opposite to their country. It is likewise of a whitish colour at Kamtschatka.

But independent of its manners or its mental qualities, this animal is of the most extensive utility to man. We are clothed by its fleece. The flesh is a delicate and wholesome food. The skin, dressed, forms different parts of our apparel; and is used for covers of books. The entrails, properly prepared and twined, serve for strings for various musical instruments. The bones calcined (like other bones in general), form materials for tests for the refiner. The milk is thicker than that of cows, and consequently yields a greater quantity of butter and cheese; and in some places is so rich, that it will not produce the cheese without a mixture of water to make it part from the whey. The dung is a remarkably rich manure; inasmuch that the folding of sheep is become too useful a branch of husbandry for the farmer to neglect. Nature, in short, has given this animal nothing that does not redound to our benefit.

The ram is capable of generation at the age of 18 months; and the ewe can be impregnated when a year old. One ram is sufficient, according to Buffon, for 25 or 30 ewes; they have often been known indeed to beget 100 lambs in a single season. He ought to be large and well proportioned; his head should be thick and strong, his front wide, his eyes black, his nose flat, his neck thick, his body long and tall, his testicles massy, and his tail long (B). White is the best colour for a ram. The ewes whose wool is most plentiful, bushy, long, soft, and white, are most proper for breeders, especially when at the same time they are of a large size, have a thick neck, and move nimbly.

In this climate ewes fed in good pastures admit the ram in July or August; but September or October are the months when the greatest part of our ewes, if left to nature, take the ram. They go with young about five months, and generally bring forth but one at a time, though frequently two: in warm climates, they may bring forth twice in a year; but in Britain, France, and most parts of Europe, only once. They give milk plentifully for seven or eight months. They live from 10 to 12 years: they are capable of bringing forth as long as they live, when properly managed; but are generally old and useless at the age of seven or eight years. The ram, though he lives 12 or 14 years, becomes unfit for propagating when eight years old.

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(B) Buffon says "he should be garnished with horns; for hornless animals, of which there are some in our climates, are less vigorous and less proper for propagating." On this the annotator observes, that "there are many breeds of sheep in which both males and females want horns; yet they are as vigorous as any of the species. The largest and finest sheep in England have no horns. In some counties, the inhabitants are perfectly unacquainted with horned sheep; in other places, a sheep without horns is as great a rarity as one with four or six horns."

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When the male lambs are not intended to be kept for propagation, but fattened for food, they ought to be castrated at the age of five or six months. This operation is performed two ways: in the one, an incision is made, and the testicles taken out; in the other, a ligature is tied tight round the scrotum, above the testicles, which soon destroys the vessels which nourish them. After castration they are called *wedders*.

The ram, ewe, and wedder, when one year old, lose the two fore-teeth of the under jaw; six months afterwards, they lose the two foreteeth next to these; and at the age of three years, the teeth are all replaced. The age of a ram may likewise be discovered by his horns, which always appear the first year, and frequently as soon as he is brought forth. These horns uniformly acquire an additional ring every year, as long as the creature lives. The ewes commonly have no horns, but a kind of long protuberances in place of them: however, some of them have two and some four horns.

Ibid. p. 481.
&c.

"It has been remarked by the ancients (says Buffon), that all ruminating animals have suet: But this remark, strictly speaking, holds only with regard to the sheep and goat: The suet of the wedder is more copious, whiter, drier, firmer, and better, than that of any other animal. Fat or grease is very different from suet; the former being always soft, while the latter hardens in cooling. The greatest quantity of suet is found about the kidneys; and the left kidney furnishes more than the right. There are also considerable quantities in the epiploon or web, and about the intestines; but it is not near so firm or good as that of the kidneys, the tail, and other parts of the body. Wedders have no other grease but suet; and this matter is so prevalent in their bodies, that their whole flesh is covered with it. Even the blood contains a considerable quantity of suet; and the semen is so charged with it, as to give that liquor a different appearance from that of other animals. The semen of men, of the dog, horse, ass, and probably of every animal which affords not suet, dissolves with cold; or, when exposed to the air, becomes more and more fluid from the moment it escapes from the body. But the semen of the ram, and perhaps of every animal that has suet, hardens and loses its fluidity with its heat.

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"In the sheep, the taste of the flesh, the fineness of the wool, the quantity of suet, and even the size of the body, vary greatly in different countries. In France, the province of Berri abounds most in sheep. Those about Beauvais, and in some other parts of Normandy, are fatter and more charged with suet. They are very good in Burgundy; but the best are fed upon the sandy downs of our maritime provinces. The Italian, Spanish, and even the English wools, are finer than the French wool. In Poitou, Provence, the environs of Bayonne, and several other parts of France, there is a race of sheep which have the appearance of being foreign. They are larger, stronger, and better covered with wool than the common kind. They are likewise more prolific, producing frequently two lambs at a time. The rams of this race engender with the common ewes, and produce an intermediate kind. In Italy and in Spain, there are a great variety of races; but they ought all to be regarded as of the same species with our common sheep, which, though so numerous and diversified, extend not beyond Europe. Those animals with a long broad tail, so common in Asia and Africa, and which are called *Barbary sheep* by travellers, appear to be a species different from the ordinary kind, as well as from the Pacos and Lama of America.

"As white wool is most valued, black or spotted lambs are generally slaughtered. In some places, however, almost all the sheep are black; and black lambs are often produced by the commixture of white rams with white ewes. In France, there are only white, brown, black, and spotted sheep; but in Spain, there is a reddish kind; and in Scotland there are some of a yellowish colour. But all these varieties of colour are more accidental than those produced by different races; which, however, proceed from the influence of climate, and the difference of nourishment."

Respecting the varieties, or, as some will have it, the different species of sheep, there has been a great difference of opinion amongst the learned. Buffon, we find, in the above extract, if we understand him right, regards the variety of races in Italy and in Spain as of the same species with our common sheep: but he considers the Barbary sheep as a distinct species (c). Dr Pallas, the learned naturalist already quoted, in very

(c) How consistent this opinion is with that which makes the *argali* the parent sheep, we shall not pretend to determine. This hypothesis he brings forward in the end of the 7th volume of his natural history*, * Edin. and as much of it as concerns the present subject we shall here insert. He concludes, from a strain of reasoning, strong and plausible at least, if not absolutely convincing, that "the temperature of the climate, the quality of the food, and the evils produced by slavery, are the three causes of the changes and degeneration of animals. The effects of each merit a separate examination; and their relations, when viewed in detail, will exhibit a picture of Nature in her present condition, and of what she was before her degradation.

"Let us now compare our pitiful sheep with the mouflon, from whom they derived their origin. The mouflon, which is the same with the *argali*, is a large animal. He is fleet as a stag, armed with horns and thick hoofs, covered with coarse hair, and dreads neither the inclemency of the sky nor the voracity of the wolf. He not only escapes from his enemies by the swiftness of his course, but he resists them by the strength of his body, and the solidity of the arms with which his head and feet are fortified. How different from our sheep, who subsist with difficulty in flocks, who are unable to defend themselves by their numbers, who cannot endure the cold of our winters without shelter, and who would all perish, if man withdrew his protection? In the warmest climates of Asia and Africa, the mouflon, who is the common parent of all

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very extensive travels in the Russian empire, more particularly in Siberia, and amongst the pastoral nations of great Tartary, found what he regards as only one species of sheep subdivided into four varieties, and

distinguished by their tails, the form of their heads, their ears and fleece. So that he condemns as unfounded and fanciful the erroneous idea of making *specific* differences of the accidental varieties, which, in his opinion, education

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all the races of this species, appears to be less degenerated than in any other region. Though reduced to a domestic state, he has preserved his stature and his hair; but the size of his horns are diminished. Of all domestic sheep, those of Senegal and India are the largest, and their nature has suffered least degradation. The sheep of Barbary, Egypt, Arabia, Persia, Calmuck, &c. have undergone greater changes. In relation to man, they are improved in some articles, and vitiated in others: But, with regard to nature, improvement and degeneration are the same thing; for they both imply an alteration of original constitution. Their coarse hair is changed into fine wool. Their tail, loaded with a mass of fat, has acquired a magnitude so incommodious, that the animals trail it with pain. While swollen with superfluous matter, and adorned with a beautiful fleece, their strength, agility, magnitude, and arms, are diminished: These long-tailed sheep are only half the size of the mouflon. They can neither fly from danger, nor resist the enemy. To preserve and multiply the species, they require the constant care and support of man.

"The degeneration of the original species is still greater in our climates. Of all the qualities of the mouflon, our ewes and rams have retained nothing but a small portion of vivacity, which yields to the crook of the shepherd. Timidity, weakness, resignation, and stupidity, are the only melancholy remains of their degraded nature. To restore their original size and strength, our Flanders sheep should be united with the mouflon, and prevented from propagating with inferior races; and, if we would devote the species to the more useful purposes of affording us good mutton and wool, we should imitate some neighbouring nations in propagating the Barbary race of sheep, which, after being transported into Spain, and even into Britain, have succeeded very well. Strength and magnitude are male attributes; plumpness and beauty of skin are female qualities. To obtain fine wool, therefore, our rams should have Barbary ewes; and to augment the size, our ewes should be served with the male mouflon."

The learned Count seems to speak with more certainty upon this subject than the circumstances of the case, or the nature of the facts (as yet far from being fully ascertained, or completely authenticated), will admit. The editor of the Bee, who is well known to have devoted much time and attention to this subject, thus ably exposes the futility of those arguments which are brought in support of an hypothesis, which he thinks extremely absurd, or at least premature. "Buffon (says he), who is the least scrupulous of all modern naturalists, has been the most forward to decide in this, as in many other cases. He does not so much as condescend to admit that there can be a doubt in this case; but on all occasions assumes it as a certainty, that all the varieties of one species have been derived from one parent; and boldly raises upon that supposition many practical inferences, which, if his theory should prove to be unfounded, might lead to very important errors; so that it is not a matter of idle curiosity to investigate this question." He then goes on to show by some particular instances the gross absurdity of Buffon's opinion. "Were (continues he) these diversities only casual, and apt to vary, it might be more easy for us to give faith to the hypothesis; but this is not the case. Experience hath fully proved, that any one breed may be kept perfectly uncontaminated for any length of time, with all its distinctive peculiarities entire, merely by preventing an intermixture by copulation. Nor is this all; it is also known, that if such intermixture be permitted, the descendants will undoubtedly be a mixed breed, evidently participating of the qualities and appearances of both their parents. Between a hound and a grehound, a mongrel breed is obtained which possesses the sense of smelling, though in a less degree than the one, and the faculty of fleetness in a less degree than the other, of its parents; and its whole external appearance evidently indicates at first sight the compound of the flock whence it has descended. But let a small lap dog and a large mastiff be fed with the same food and tended with the same care, the one discovers no symptoms of increasing in size or diminishing it more than the other. Let them be carried from one country to another, they equally preserve their original distinctive qualities, without any farther change than the climate may perhaps produce; which equally seems to affect all the varieties of this animal. Never was there adopted an hypothesis more truly absurd than that of Buffon in this respect. Nor was there ever made such a barefaced attempt to try how far the credulity of mankind could lead them astray in deference to a great name, in direct contradiction to facts which fall immediately under the cognisance of every man who pleases but to open his eyes, and look right before him, as in those bold and unfounded assertions which he has been pleased to make, with regard to the transformation of dogs from one variety into another. Yet these opinions have been inadvertently transcribed many times by learned naturalists, without one symptom of doubt or hesitation. But can any thing be more contrary to reason, experience, and facts that every man has before his eyes every day in his life, than such opinions? It is indeed humiliating for the pride of man, who plumes himself on the superiority of reason, to remark this. And it is mortifying for modern philosophy, which affects to be founded on experience and accurate observation of facts alone, to point out such things; but truth ought in all cases to be adhered to." Though this note has already extended to an undue length, we cannot omit the following observations by the same patriotic writer: "In regard to sheep, the varieties of this useful class of animals seem to be considerable, and their natural propensities so discriminated as to be admirably calculated for adapting them to different situations on this globe, so as to make them a very universal inhabitant of it: and these are so diversified as to habits and instincts,

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education or mode of life, climate, food, and crossing the breed, have produced in sheep, as in other animals; and, in conformity to this opinion, he considers not only those varieties found in Europe, but also those of other quarters of the globe, as only accidental varieties of the same species; and his opinion is confirmed, by finding that they produce a prolific race though the breed be ever so much crossed; which he thinks would not be the case were they different species. The varieties which Dr Pallas examined, which, as we have already said, are four, are as follow. The first is named both by the Tartars and Russians *Tscherkeffian* sheep, and by Pallas *dolichura* or long-tailed: it is the *ovis longicauda* of authors.

The second is called the Russian sheep by the natives, and by Pallas *brachiura* or short-tailed: it seems to be the *ovis Islandicus* of authors, with smaller horns.

The third has no fixed trivial name, as its appellations are as various as the provinces where it is reared; Pallas has called it *steatopyga* or fat-tailed: it is the *ovis laticaudata* of authors.

The fourth has likewise no fixed trivial name, but Pallas has called it *bucharian*, from finding it reared by the Bucharian Tartars in immense flocks. The *Tscherkeffian* sheep, or first variety, is a handsome animal, with a noble air, in its native country and the south of Russia, resembling in its habits, horns, fleece, and length of tail, the Spanish, but more particularly the English sheep. Its head is well proportioned, and of an elegant form; ears straight; horns large, even, rounded in the angles, tapering to a point, and bending inwardly towards the back. The rams are seldom without horns, and the ewes have them often bent in a lunar form. The wool, though coarse, is without admixture of hair, which is perhaps but an accidental distinction, and promises to be much meliorated by crossing the breed, and rearing the animal with more care and skill. It is even known to become much finer without the assistance of art, merely from the influence of a temperate climate, as on mount Caucasus. The tail of the ram is covered with fine long wool, like the Indian sheep described by Buffon, which trails on the ground, so as to efface the prints made by the animal's feet on sand, and it contains often 20 joints or vertebrae. In passing from the state of nature to that of servitude, it seems to have lost its native ferocity, together with its coarse fleece. Dr Pallas says it is a mild gentle animal, and is less degenerated in form from the argali, which, according to his system, is the parent species, than the *steatopyga*, which on the other hand has preserved much more of its wildness than the *Tscherkeffian*; perhaps because it is allowed to range with little restraint on the wide extended plains of Great Tartary. The *Tscherkeffian* is reared in all the European regions of the Russian empire, situated on this side the river Occa, in the nearer Poland, and by the pastoral people of

mount Caucasus; and they are commonly of a white colour.

The same variety, we are told by Russel, in his natural history of Aleppo, is reared under the name of *Bedouin sheep* by the Arabs, and in the western parts of Mauritania, with a trifling difference in the length and thickness of the tail. There are likewise sheep in Morocco, which belong to this variety, on account of the distinguishing character of it, a long tail, although otherwise different, in having an ugly look, head covered entirely with hair, little hanging ears, and remarkably long wool.

The Indian and Guinea sheep, so well described by Buffon, resemble the *Tscherkeffian* only in the length of their tail, whilst in other respects they come nearer the *steatopyga* or fat-rumped sheep of Pallas in size, form, and fleece mixed with hair. The learned naturalist is of opinion, that the arid burning deserts produce this change on the wool; but his reasoning on this head is to us at least as little satisfactory as that by which he endeavours to prove the argali to be the parent species. The inhabitants of Ukraine and Padoli carry on an extensive and valuable traffic with the skins of *Tscherkeffian* sheep, the beauty of which they heighten in a very curious manner.

The *brachiura*, short-tailed, or second variety which Dr Pallas examined in his travels, is reared throughout all the north of Russia, and resembles that of Iceland in size, tail, and coarseness of fleece; but though this be the case in these few respects, yet it differs from it in a very essential character, that of horns, which are much smaller, and have nothing of that exuberance which Buffon and others attribute to the sheep of that island. It resembles the *Tscherkeffian* sheep in the form of its head, straight upright ears, and in thickness of fleece; but the quality of the two fleeces are very different, this variety having wool almost as coarse as dog's hair: but the great distinguishing character between them is the tail, which is almost a quarter of a yard shorter than that of the *Tscherkeffian*. The *brachiura*, or short-tailed sheep, is reared not only by the northern Russians, but likewise by the Fins and other neighbouring nations. Some of this variety have been transported into Siberia, where they have supported themselves on some pastures, though in poor condition; but through all the southern countries they are in less estimation than the long-tailed and fat-tailed varieties, which are much superior to them for size, fat, and good eating. The ewe of this short-tailed variety couples readily with the ram of the *steatopyga* or fat-tailed breed, and produces an animal nobler and larger than its mother, with a tail swelled at the base with fat, but meagre towards the end like that of the mixed breed, which makes Dr Pallas's fourth and last variety of domestic sheep. The ewe also couples clandestinely with the domestic

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as to preserve the principal breeds very distinct, if left in a state of nature. The argali, strong, active, nimble, delights to live among rocks and inaccessible places; while the large sluggish breed of sheep, such as those that have been taken into keeping by our countryman Bakewell, could never ascend these steeps, but are well calculated to consume the produce of the fertile plains; there is therefore no chance that these two breeds would ever intermingle, if left entirely to themselves. The last of these two varieties has indeed been long domesticated by man, as being utterly incapable of withdrawing itself from his sway, though the first has been able to preserve its independence till the present hour in some of the mountainous and least inhabited districts on the globe." He then goes on to mark the lesser distinctions, in which, however, we cannot follow him.

Ovis.

domestic he-goat, and produces an animal much resembling the mother, but with a fleece of wool and hair. This latter is a fact of the truth of which we have some doubt. The Doctor may easily have been misled, and may have adopted his opinion, merely from the shaggy appearance of the fleece of some breeds of sheep, which much resembles the hair of a goat; but these are found as well in countries where no goats exist, as in those where they abound. The fact has not then, we think, been sufficiently ascertained. This variety supports extremely well the severity of a northern climate; and Dr Pallas doubts not but it might pass the winter in the plains of mountainous northern countries where there is not much snow; nay, he even thinks it might augment their hardiness and strength, if we are to judge from the habits and treatment of the Iceland flocks, so well described by Anderson in his account of that island.

Dr Pallas remarked, that on mountainous pastures exposed to the sun, such as on the acclivity of the Ouralic chain, the Russian or short-tailed sheep were larger, fatter, and had a finer fleece.

Crossing the breed with the Tscherkessian or long-tailed sheep likewise mends both the stature and fleece of the brachiura; whereas, in its own natural state, without admixture of other varieties of sheep, it is but small, lean, and produces, in the northern parts of Russia, a wool so extremely coarse as only to be fit for the cloth of peasants in a state of vassalage.

Whether coarseness of wool and leanness be indeed characteristic marks of this species, is, we think, extremely doubtful: we are rather inclined to consider them as mere accidental differences.

The Doctor's third variety, or *steatopyga*, which has a different name in almost every country where it is reared, is both the most abundant and largest breed of sheep in the world. It is reared throughout all the temperate regions of Asia, from the frontiers of Europe to those of China, in the vast plains of Tartary. All the Nomade hordes of Asia, the Turcomans, Kirguise, Calmucks, and Mongal Tartars, rear it; and indeed it constitutes their chief riches, the number they possess being enormous. The Persians also rear it in abundance; as likewise the Hottentots, as we are informed by Kolbe in his Travels to the Cape of Good Hope; whilst Osbeck, in his Journey to China, asserts, that the fat-tailed sheep are reared through that whole empire. We are told also by Shaw and the Abbé Dermanet, that the same breed obtains in Syria, Mauritania, and the other regions of Africa, under some modifications of form, from different causes; so that Dr Pallas thinks there is sufficient evidence that the *steatopyga*, or fat-rumped sheep, is the most universally reared and multiplied of any breed in the world. The flocks of all the Tartar hordes resemble one another by a large yellowish muzzle, the upper jaw often projecting beyond the lower; by long hanging ears; by the horns of the adult ram being large, spiral, wrinkled, angular, and bent in a lunar form. The body of the ram, and sometimes of the ewe, swells gradually with fat towards the posteriors; where a solid mass of fat is formed on the rump, and falls over the anus in place of a tail, divided into two hemispheres, which take the form of the hips, with a little button of a tail in the middle, to be felt with the finger.

No 255.

See A fig. 16. plate CCCLXXI. The *uropygium* or fat-rump, which is made up of this oily species of fat, is so very large as to incommode the animal in walking; but when the same sheep are carried into the interior parts of Russia, the tail loses half its size and weight, nay sometimes more, from a change in their food and mode of life. This variety, besides the characters mentioned above, have slender legs in proportion to their bodies, a high chest, large hanging testicles, a large prepuce, and tolerably fine wool mixed with hair. Such are the great characteristic marks by which the flocks of all the Tartar hordes resemble one another; but climate, soil, &c. produce some small difference on this variety, whether reared by the Tartars or the Russians, in the western deserts of Great Tartary, from the river Volga to the Irtysh, and the Altaic chain of mountains. In all that tract of country, the pasturage is mostly arid; and it abounds in acrid and liliaceous plants in spring, whilst in summer it produces, at least in the open spots where sheep delight to feed, besides gramen, bitter and aromatic plants, artemisia, camphorosna, and many species of *salsola*, abounding in juices and salts. There is likewise found everywhere an efflorescence of natron, with sea or glaubers salt; nay, even the waters of the desert contain in general the same salts. Now it is almost unnecessary to inform European shepherds, that such pasturage has the effect of augmenting the size of sheep, if it produces no other change upon them; so that we see, in this instance, how some kind of difference may arise amongst sheep of the same breed merely from accidental causes, without the least admixture of heterogeneous blood. This variety changes greatly in size and in other incidental circumstances, according to the method of raising or of treating them in different places and by different people.

The fourth variety, raised by the Bucharian Tartars and Persians in great numbers, Dr Pallas regards as a mixed breed, arising, as he supposes, from the union of the first and third varieties, *i. e.* of the long and fat tailed sheep. The Doctor does not think that they ever attain to the size of either of their parents; though, as he never saw any full grown, he does not speak positively upon the subject. The head of this variety is like that of the Kirguise; but the muzzle is sharper, resembling the Indian of Buffon: the body is rather smaller than that of the Kirguise sheep: the ears are large and pendant: they have a small *uropygium*, like that of the Tartar sheep on the Jenisy, especially when begotten by a Kirguise ram; but in general they have a *tail* fat and broad at the base, with a long narrow appendage, which resembles the tail of the Tscherkessian sheep. The Bucharian Tartars have a very valuable traffic with the furs of the lambs of this variety, which are exquisitely fine and beautiful. This same variety is likewise raised in great numbers by the Persians; and it is more than probable, if we are to give credit to authors ancient and modern, that this very variety obtains in Syria, Palestine, and divers countries of Africa, known to them by the name of *ovis macroceras*. It differs in all those countries from the fat-tailed, or *steatopyga* of Pallas, in having a long tail, fat and broad above, with a long narrow appendage, which is exactly the great

Ovis.

Ovis.

great marked character of the Boucharian breed. Pliny tells us, that the Syrian sheep have long fat tails, and carry wool; and by Ruffel's account of them, in his Natural History of Aleppo, they resemble the Kirguise sheep in the head, face, and ears hanging on the cheeks; but the tail is that of the Boucharian, fat above, with a long lean appendage. He adds, that they are covered with a soft wool, which is another trait of resemblance with our present variety; and that they weigh sometimes 150 pounds, one-third of which is the weight of the tail. Gesner, in his work on quadrupeds, tells us, that the Arab sheep of Kay have nearly the same characteristic marks, especially with regard to the tail.

Shaw relates in his Travels, that sheep with such a compound tail are common in Mauritania, and in all the East; whilst Kolbe assures us, that the sheep which are brought on board the ships at the Cape of Good Hope have tails weighing 25 or 30 pounds, fat above, with a bony appendage hanging from it; and, lastly, the Abbé Demanet, in his new History of Africa, says, that sheep are found in Africa covered with wool, and with such a tail as we have been describing; whilst at Cape Guarda, in the south of Africa, all the sheep are white, with rather small black heads, otherwise a large handsome breed, with broad fat tails, six or eight inches long.

The Doctor, however, does not entirely close his proofs here; for he quotes several passages from Moses in confirmation of what he has advanced, viz. that the Boucharian sheep obtain in Syria, Palestine, and divers countries of Africa. The passages he quotes are these: Leviticus viii. 25. ix. 19. But whether these verses prove what the Doctor has quoted them as proving, we will not determine.

These are the four varieties which Dr Pallas saw and examined in his extensive travels. The account is, we think, curious; to naturalists interesting; and to farmers it may be useful. If it only excite further research and minuter inquiry, it will answer some purpose. Indeed, the man of science will not rest satisfied with what our prescribed bounds have permitted us to bring forward, but will recur to the original work of the learned author to whom we are primarily indebted for the above account. We refer such readers, then, to his *Spicilegium Zoologicum, fasciculus undecimus*, printed at Berlin in 1776.

It may not be improper to describe the figures of these four varieties. They are all contained in Plate CCCLXXI. fig. 16. of which is the argali. Fig. 17. is a side and back view; letters Aa of the ram of the steatopyga, or fat-rumped variety, in its greatest purity of breed, as obtaining among the Kirguise Tartars in the vast plains of Southern Tartary. The position of the animal marked with a shows the uropygium or fat rump. Letter b is a representation of the head of the same animal, with a couple of noneola hanging from the neck, called by the Russians *ear-rings*. Letter C is a drawing of another Kirguise

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ram with five horns, showing at same time the hanging position of the ears of this variety. Fig. 18. is a drawing of a degenerate breed of the steatopyga variety of sheep, reared on the banks of the Jenisy and Volga, without horns, and with the uropygium or fat rump greatly diminished, and one noneola. Letter b (fig. 19.) is a drawing of a ram of the same variety of sheep, from the flocks of the Jenisy Kirguise, with four horns symmetrically arranged by nature, as is frequently the case with this breed.

In a supplement to his article Sheep, Buffon has these words respecting the strepsiceros: "I here give Buffon, as figures," says the Count (see Plate CCCLXXI above, fig. 14. and 15.) "of a ram and ewe, of which drawings were sent me by the late Mr Colinson, fellow of the Royal Society of London, under the names of the *Walachian ram* and *ewe*. As this learned naturalist died soon afterwards, I could not discover whether these sheep, whose horns are extremely different from those of the ordinary kind, be common in Walachia, or whether they are only an accidental variety (D).

"In the northern parts of Europe, as Denmark and Norway, the sheep are not good; but, to improve the breed, rams are occasionally imported from England. In the islands adjacent to Norway, the sheep remain in the fields during the whole year; and they become larger and produce finer wool than those which are under the care and direction of men. It is alleged, that those sheep which enjoy perfect liberty always sleep, during the night, on that side of the island from whence the wind is to blow next day. This natural indication of the weather is carefully attended to by the mariners*.

"The rams, ewes, and wedders of Iceland, differ chiefly from ours by having larger and thicker horns. Some of them have three, four, and even five horns. But this peculiarity of having more horns than two, must not be considered as common to the whole race of Iceland sheep; for in a flock of four or five hundred, hardly three or four wedders can be found with four or five horns, and these are sent to Copenhagen as rarities. As a farther proof of their being scarce, they give a higher price in Iceland than the common kind."

In Spain and the southern parts of Europe, the flocks of sheep are kept in shades or stables during the night: but in Britain, where there is now no danger from wolves, they are allowed to remain without, both night and day; which makes the animals more healthy, and their flesh a more wholesome food. Dry and mountainous grounds, where thyme and sheep's fescue grass abound, are the best for the pasturing sheep.

The sheep is subject to many diseases: some arising from insects which deposit their eggs in different parts of the animal: others are caused by their being kept in wet pastures; for as the sheep requires but little drink, it is naturally fond of a dry soil. The dropsy, vertigo (the *pendro* of the Welsh), the phthisis, jaundice, and worms in the liver, annually make great havoc

4 C

vock

Ovis.

* Ponto-
pidan's
Nat. Hist.
of Norway.

§ Hist. Gen.
des Voyages,
tom. 18.
P. 19.

(D) Dr Pallas thinks it very probable that the strepsiceros variety of sheep were produced by propagating a particular configuration of horns. He alludes to the animal which Bellonius first discovered on Mount Ida in Crete, and which he supposes the strepsiceros of the ancients.

Ovis
||
Ou-poey-
tse.

vock among our flocks: for the first disease, the shepherd finds a remedy by turning the infected into fields of broom; which plant has been also found to be very efficacious in the same disorder among the human species.—The sheep is also infested by different sorts of insects: like the horse, it has its peculiar œstrus or gad-fly, which deposits its eggs above the nose in the frontal sinuses (see OESTRUS): when those turn into maggots, they become excessively painful, and cause those violent agitations that we so often see the animal in. The French shepherds make a common practice of easing the sheep, by trepanning and taking out the maggot; this practice is sometimes used by the English shepherds, but not always with the same success. Besides these insects, the sheep is troubled with a kind of tick and louse, which magpies and starlings contribute to ease it of, by lighting on its back, and picking the insects off.

We had intended to have introduced into this article some observations from Pennant; but it has already extended beyond its just limits, and we dare not venture to extend it further. Under the article WOOL, which is intimately connected with the present, we may perhaps have an opportunity of introducing some additional remarks not without importance. At all events, we trust by that time to be able to give a favourable report of that truly patriotic society which has been lately instituted in this part of the united kingdom for meliorating the breed of sheep, and in consequence the nature and quality of the wool. From the active and indefatigable exertions of Sir John Sinclair, baronet, the president of that society, we have every thing to hope from well conducted experiments, and nothing to fear from groundless hypotheses.

OUNCE, a little weight, the 16th part of a pound avoirdupois, and the 12th part of a pound Troy. The word is derived from the Latin, *uncia*, “the twelfth part of any whole,” called *as*; particularly in geometrical measures, an inch, or the 12th part of a foot. See INCH and AS.

OUNCE, in zoology. See FELIS.

OVOLO, or OVUM, in architecture, a round moulding, whose profile or sweep, in the Ionic and Composite capitals, is usually a quadrant of a circle: whence it is also commonly called the *quarter-round*. It is usually cut with representations of eggs and arrow-heads or anchors placed alternately.

OU-POEY-TSE, a name given by the Chinese to a kind of nests made by certain insects upon the leaves and branches of the tree called *yen-fou-tse*. These nests are much used in dyeing, and the physicians employ them for curing many distempers. Some of these nests were brought to Europe, and put into the hands of the celebrated Mr Geoffroy. After having examined them with the utmost attention, this learned academician thought he perceived some conformity in them to those excrescences which grow on the leaves of the elm, and which the vulgar call *elm-bladders*: he found these nests so sharp and astringent to the taste, that he considered them as far superior to every other species of galls used by the dyers. According to him, they are the strongest astringents existing in the vegetable kingdom.

It is certain that there is a great affinity between the ou-poey-tse and the elm-bladders. The form of

both is unequal and irregular; they are covered on the outside with a short down, which renders them soft to the touch: within they are full of a whitish-grey dust, in which may be observed the dried remains of small insects, without discovering any aperture thro' which they might have passed. These nests or bladders harden as they grow old; and their substance, which appears resinous, becomes brittle and transparent; however, the Chinese do not consider the ou-poey-tse, notwithstanding their resemblance to elm-bladders, as excrescences of the tree *yen-fou-tse*, upon which they are found. They are persuaded, that insects produce a kind of wax, and construct for themselves on the branches and leaves of this tree (the sap of which is proper for their nourishment) little retreats, where they may wait for the time of their metamorphosis, or at least deposit in safety their eggs, which compose that fine dust with which the ou-poey-tse are filled. Some of the ou-poey-tse are as large as one's fist; but these are rare, and are generally produced by a worm of extraordinary strength, or which has associated with another, as two silk-worms are sometimes seen shut up in the same ball. The smallest ou-poey-tse are of the size of a chestnut; the greater part of them are round and oblong; but they seldom resemble one another entirely in their exterior configuration. At first, they are of a dark green colour, which afterwards changes to yellow; and the husk, though pretty firm, becomes then very brittle.

The Chinese peasants collect these ou-poey-tse before the first hoar-frosts. They take care to kill the worm inclosed in the husks, and to expose them for some time to the steam of boiling water. Without this precaution, the worm might soon break through its weak prison, which would immediately burst and be useless. The ou-poey-tse are used at Pekin for giving paper a durable and deep-black colour; in the provinces of Kiang-nan and Tche-kiang, where a great deal of beautiful satin is made, they are employed for dyeing the silk before it is put on the loom. The Chinese literati also blacken their beards with them when they become white.

The medicinal properties of the ou-poey-tse are very numerous. The Chinese physicians introduce them into the composition of many of their remedies. They recommend them for stopping bleedings of every kind; they consider them as an excellent specific for curing inflammations and ulcers, and for counteracting the effects of poison; and they employ them with success in the dropsy, phthisis, epilepsy, catarrhs, sicknesses, fluxions of the eyes and ears, and in many other disorders.

GREATER OUSE, a river which rises near Fitwell in Oxfordshire, and proceeds to Buckingham, Stony-Stratford, and Newport-Pagnel, in Buckinghamshire; from thence it proceeds to Bedford, and turning north-east it passes on to Huntingdon and Ely, till at length it arrives at Lynn-Regis in Norfolk, and falls into the sea. It is navigable to some distance above Downham, where there is a good harbour for barges; and a considerable trade is carried on by it to Lynn and other towns.

Smaller OUSE, rises in Suffolk, and, separating that county from Norfolk on the south-west, discharges itself into the Great Ouse near Downham. There is still another of the same name which rises in the west-north-

On-poey-
tse,
Ouse.

Common Ram.



Ewe.

Iceland Ram.



Spanish Ram.



Barbary Wedder.



Morvant of China.



Broad tailed Sheep.



Indian Ram.



Ram of Tunis.



Cape Sheep.



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OVIS.

Plate CCCLXXI.

Indian Ram.



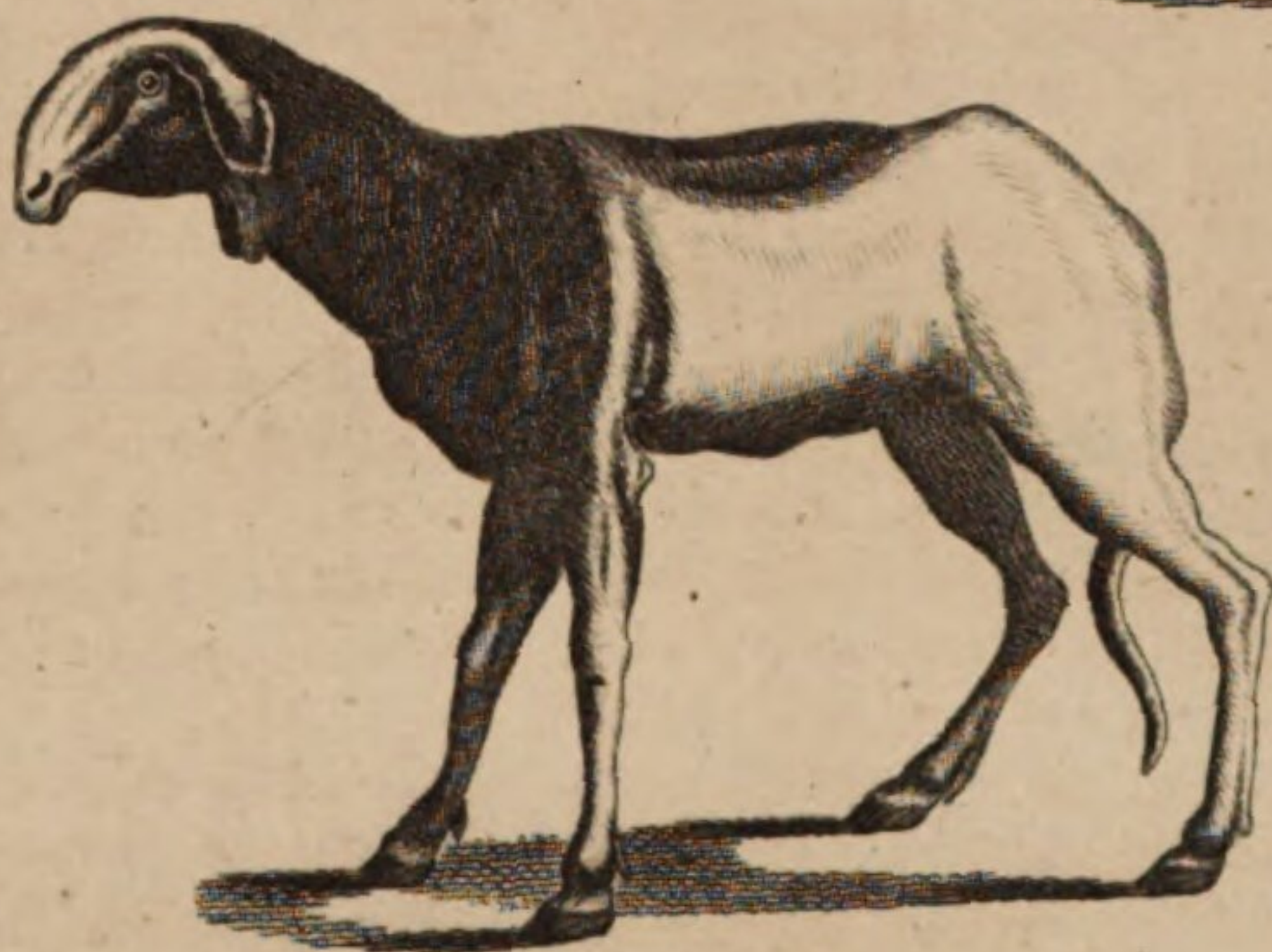
Walachian Ram.



Walachian Ewe.



Indian Ewe.



*The Siberian argali,
or Wild Sheep.*



Russian Sheep.



Steatopyga. Russian Sheep.

Russian Sheep.



A. Bell Prin. Wal. Sculptor fecit.

Ouster north-west side of Yorkshire; and chiefly running to the south-east, at length falls into the Humber.

Outlawry. **OUSTER**, or **DISPOSSESSION**, in law, an injury which carries with it the amotion of possession; for by means of it the wrong doer gets into the actual possession of the land or hereditament, and obliges him that hath a right to seek a legal remedy, in order to gain possession, together with damages. This ouster may either be of the freehold by abatement, intrusion, disseisin, discontinuance, and deforcement; or of chattels real, as an estate by statute-merchant, statute-staple or elegit, or an estate for years.

OUSTER le Main, *amovere manum*, in law, denotes a livery of lands out of the king's hands; or a judgment given for him that traversed, or sued, a *monstrans le droit*. When it appeared, upon the matter being discussed, that the king had no right or title to the land seized, judgment was given in chancery, that the king's hand be amoved; and *ouster le main*, or *amoveas manum*, was therefore awarded to the escheator, to restore the land, &c. All wardships, liveries, *ouster le mains*, &c. are now taken away and discharged by statute 12. Car. II.

OUSTIOUG, a town of the Russian empire, and capital of a province of the same name, with an archbishop's see and a castle; seated on the river Suchan, over-against the mouth of the Jug, in E. Long. 43. 25. N. Lat. 61. 48.

OUSTIOUG, a province of the Russian empire, bounded on the north by Dwina, on the east by the forest of Zirani, on the south by Wologda, and on the west by Cargapol and Waga. It is divided into two parts by the river Suchana; is full of forests; and the rivers yield plenty of fish, which the inhabitants dry in the sun, and which make their principal nourishment.

OUT-POSTS, in a military sense, a body of men posted beyond the grand guard; called *out-posts*, as being the rounds or limits of the camp.

OUTLAW, signifies one that is deprived of the benefit of the law, and therefore held to be out of the king's protection.

Bracton asserts, that an outlaw forfeits all he has; and that, from the time of his outlawry, he wears a wolf's head; and any body may kill him with impunity, especially if he defend himself or fly. But in Edward III.'s time it was resolved by the judges, that it should not be lawful for any man, but the sheriff alone (having sufficient warrant for it), to put to death a man that was outlawed.

OUTLAWRY, the punishment of a person who, being called into law, and lawfully, according to the usual forms, fought, does contemptuously refuse to appear.

The effect of being outlawed at the suit of another, in a civil cause, is the forfeiture of all the person's goods and chattels to the king, and the profits of his land, while the outlawry remains in force. If in treason or felony, all the lands and tenements which he has in fee, or for life, and all his goods and chattels, are also forfeited: and besides, the law interprets his absence as a sufficient evidence of guilt; and without requiring farther proof, accounts the person guilty of the fact, on which ensues corruption of blood, &c. And then, according to Bracton, he may perish without law, &c. However, to avoid inhumanity, no man is intitled to kill him wantonly or wilfully; but in so

doing he is guilty of murder, unless it happens in endeavouring to apprehend him: for any body may arrest an outlaw, either of his own head, or by writ or warrant of *capias utlagatum*, in order to bring him to execution.

If after outlawry, in civil cases, the defendant publicly appear, he is to be arrested by a writ of *capias utlagatum*, and committed till the outlawry be reversed: which reversal may be had by the defendant's appearing in court (and in the king's-bench, by sending an attorney, according to statute 4 and 5 W. and M. cap. 18.), and any plausible circumstance, however trifling, is in general sufficient to reverse it; it being considered only as a process to force appearance. The defendant must, however, pay full costs, and must put the plaintiff in the same condition as if he had appeared before the writ of *exigi facias* was awarded. It is appointed by magna charta, that no freeman shall be outlawed, but according to the law of the land. A minor or a woman cannot be outlawed.

In Scotland outlawry anciently took place in the case of refusal to fulfil a civil obligation, as well as in criminal cases. At present, however, it only takes place in the two cases of flying from a criminal prosecution, and of appearing in court attended by too great a number of followers. But the defender, upon appearing at any distance of time and offering to stand trial, is intitled *de jure* to have the outlawry reversed, and to be admitted to trial accordingly, and even to bail if the offence be bailable. See **WAIVE**.

OVUM **ANGUINUM**. See **ANGUINUM**.

OUTWORKS, in fortification, all those works made without-side the ditch of a fortified place, to cover and defend it. See **FORTIFICATION**.

OUZEL, in ornithology; a species of **MOTACILLA**.

OWEN (Thomas), a judge of the common-pleas, son of Richard Owen, Esq; of Condover in Shropshire, was educated at Oxford, and, as is generally supposed, at Christ-church college. Having taken a degree in arts, he left the university, and entered himself of Lincoln's inn in London, where in process of time he became an eminent counsellor. In 1583 he was elected Lent-reader to that society. In 1590 he was made serjeant at law, and queen's serjeant soon after. He arrived at length at the dignity of judge of the common-pleas; which office he is said to have executed, during five years, with great abilities and integrity. He died in 1598; and was buried on the south side of the choir in Westminster abbey, where a monument was erected to his memory. He had the reputation of a learned man, and a patron of literature. He was the author of "Reports in the common pleas, wherein are many choice cases, most of them thoroughly argued by the learned serjeants, and after argued and resolved by the grave judges of those times, with many cases wherein the difference of the year-books are reconciled and explained." Lond. 1656, folio.

OWEN (Dr John), an eminent and learned dissenting minister, was born in 1616, at Hadham, in Oxfordshire, of which place his father was vicar. He made such surprising proficiency in learning, that at twelve years of age he was admitted into Queen's-college, Oxford, and in 1635 was made master of arts: but soon after, disapproving the new regulations made by Archbishop Laud their chancellor, with which he

Owen.

refused to comply, he was obliged, in 1637, to leave the university; when, taking orders, he became chaplain to Sir Robert Dormer of Ascot in Oxfordshire, and was at the same time tutor to his eldest son. He was afterwards chaplain to John Lord Lovelace of Hurley in Berkshire; when the civil war broke out, he openly avowed the cause of the parliament; which was so resented by an uncle, who had intended to leave him his estate, that he discarded him, and left it to another. Yet though Lord Lovelace sided with the king, he treated his chaplain with great civility: but on his going to join the royal army, Mr Owen went to London, and soon after joined the non-conformists. In 1642 he published his book, intitled, *A Display of Arminianism*, which laid the foundation of his future advancement: for the committee for purging the church of scandalous ministers were so pleased with it, that Mr White their chairman sent him a presentation of the living of Fordham in Essex: but when he had been there about a year and a half, the patron hearing that the sequestered incumbent was dead, presented another to the living; upon which the earl of Warwick gave Mr Owen the living of Coggeshal. He had not, however, been long at that town before he left the Presbyterians; and, joining the Independents, formed a church there. He was now sent for several times to preach before the parliament; and among the rest on the 28th of February 1648-9, the day of humiliation for the intended expedition to Ireland. Cromwell, who was present at this last discourse, and had never heard him before, was extremely pleased with it, and desired his company into Ireland, and that he would reside in the college of Dublin. This he did; but returned in about half a year. Soon after Cromwell sent him into Scotland; but he also returned from thence after about half a year's stay at Edinburgh. He was then promoted to the deanery of Christ-church, Oxford, whither he went in 1651; and Cromwell, being now chancellor of the university, nominated him his vice-chancellor. The next year he was created doctor of divinity by diploma. Dr Owen enjoyed the post of vice-chancellor five years; during which he behaved with the greatest moderation: for, though often solicited, he never molested the meeting of the royalists at the house of Dr Willis the physician, where divine service was performed according to the liturgy of the church of England; and though he was a commissioner for ejecting scandalous ministers, he frequently overruled his brethren in favour of those royalists who were distinguished by their merit. At the death of Cromwell, he was removed from the vice-chancellorship; and at the Restoration was ejected from his deanery of Christ-church. But he had provided himself a comfortable retreat at an estate he had purchased at Hadham. He now employed himself in preaching as often as he had an opportunity, and in writing books; one of which, intitled *Fiat Lux*, falling into the hands of Lord Clarendon, he was so pleased with it, or (as is said) from policy pretended to be so, that he sent for Dr Owen, and acknowledging the service he had done by it to the Protestant religion, offered to prefer him in the church, if he would conform; but he desired to be excused.—His moderation drew him respect from persons of opposite principles; and in the number of his friends were Dr Wilkins bishop of Chester,

and Dr Barlow bishop of London. He died at Eal-Owhyhee in 1683. His works are printed in seven volumes folio.

Wood, after censuring him in many respects, says nevertheless, that, "to speak impartially, he was a person well skilled in the tongues, Rabbinical learning, and Jewish rites and customs; that he had a great command of his English pen, and was one of the gentlest and fairest writers who have appeared against the church of England."

OWHYHEE, the easternmost, and by far the largest, of the Sandwich islands. Its greatest length from north to south is $28\frac{1}{2}$ leagues, its breadth 24, and its circumference nearly 300 English miles. It is divided into six large districts; two of which on the north-east side are separated by a mountain, that rises in three peaks, which is perpetually covered with snow, and may be seen clearly at 40 leagues distance. To the north of this mountain, the coast consists of high and steep cliffs, down which fall many beautiful cascades of water. The whole country is covered with cocoa-nut and bread-fruit-trees. The peaks of the mountain on the north-east side appear to be about half a mile in height, and entirely covered with snow. To the south of this mountain, the coast presents a prospect of the most dreary kind, the whole country appearing to have undergone a total change by means of some dreadful convulsion. The ground is everywhere covered with cinders, and intersected in many places with black streaks, which seem to mark the course of a lava that has flowed not many ages since from the mountain to the shore. The southern promontory looks like the mere dregs of a volcano. The projecting headland is composed of broken and craggy rocks, piled irregularly upon one another, and terminating in sharp points; yet, amidst these ruins, there are many pieces of rich soil, which are carefully laid out in plantations, and the neighbouring sea affords a vast variety of excellent fish: so that this quarter is much better inhabited than those which are more verdant. The fields are inclosed with stone fences, and are interspersed with groves of cocoa-nut trees. We are told indeed by some of Cook's people who walked through a considerable part of it, that they did not observe a spot of ground that was susceptible of improvement left unplanted; and indeed the country, from their account, could scarcely be cultivated to greater advantage for the purposes of the natives. They were surprised at seeing several fields of hay; and upon their inquiry, to what particular use it was applied, they were informed, that it was intended to cover the grounds where the young *taro* grew, in order to preserve them from being scorched by the rays of the sun. They observed among the plantations a few huts scattered about, which afforded occasional shelter to the labourers; but they did not see any villages at a greater distance from the sea than four or five miles. Near one of them, which was situated about four miles from the bay, they discovered a cave, forty fathoms in length, three in breadth, and of the same height. It was open at each end; its sides were fluted as if wrought with a chisel; and the surface was glazed over, perhaps by the action of fire. There are supposed to be on this island about 150,000 inhabitants. So long as the name of Captain Cook shall

be

Owhyhee. be remembered, this island will not be forgotten; for he here fell a victim to a strange concatenation of events. See Cook.

We have the following account of the inhabitants of this island in Ellis's Authentic Narrative, &c. "The men are above the middle size, stout, well made, and fleshy, but not fat. Corpulency is not altogether so great a mark of distinction in these as in the Society Isles; and tallness, for which the Otaheiteans have great partiality, is also overlooked. Their colour is in general brown olive. The women are in general masculine, though there are some delicately made, and the voice of them all is soft and feminine. The hair both of the head and beard is black; that of the head the men wear in the form of a helmet, that is, a long frizzled ridge from the forehead to the neck, the sides being much shorter. This fashion seems to prevail only among the principal people, that of the inferior sort being of an equal length in every part. Most of them were very desirous of parting with their beards, which, they said, were disagreeable and troublesome, and were fond of being shaved by our people. Some of the priests wore their beards long, and would not on any account part with them. The women wear their hair long before, but very short behind, which is not the most becoming mode; and, like those of the Friendly Isles, they have a way of rendering it of different colours, red, yellow, and brown. The features of both sexes are good, and we saw some of the females who might really be called fine women. Their teeth are even and perfectly white. In general, they seem to be very healthy, and we observed several who appeared to be of great age. As to diseases, we saw none who laboured under any during our stay except the venereal complaint; coughs and colds indeed were pretty general, and one man died. From what we could learn of his disorder from the natives, it was a violent griping or colic.

"Both men and women appeared to be of a good disposition, and behaved to each other with the tenderest regard: when they did fall out, which sometimes was the case, occasioned by the upsetting of a canoe, or some such trifling accident, they only scolded a little, and this was soon over and forgotten. We never saw them strike each other upon any occasion. They are all thieves, from the aree to the towtow, but not quite so expert at it as our Otaheitee friends.

"The custom of tattowing prevails greatly among these people, but the men have a much larger share of it than the women: many (particularly some of the natives of Mow'hee) have one half their body, from head to foot, marked in this manner, which gives them a most striking appearance. It is done with great regularity, and looks remarkably neat: some have only an arm marked in this manner, others a leg; some again have both arm and leg, and others only the hand. The women are the most part marked upon the hand, and some upon the tip of their tongue; but of these we saw but few. Both sexes have a particular mark according to the district in which they live; or it is rather the mark of the aree, or principal man, under whose jurisdiction they more immediately are. We never saw the operation of tattowing performed, nor could we procure a sight of the instruments used upon

this occasion; but it is likely they are much the same as those of the Friendly and Society Isles. Owhyhee.

"Both men and women are very cleanly in their persons; the latter wash their whole bodies in fresh water twice and sometimes three times a-day; but the women of Otaheitee have the advantage of them in one point of cleanliness, which is eradicating the hairs from under the arm-pits. This is a custom we observed nowhere but at the Society Isles.

"There are no people in the world who indulge themselves more in their sensual appetite than these: in fact, they carry it to a most scandalous and shameful degree, and in a manner not proper to be mentioned. The ladies are very lavish of their favours; but are far from being so mercenary as those of the Friendly or Society Isles, and some of their attachments seemed purely the effect of affection. They are initiated into this way of life at a very early period; we saw some who could not be more than ten years old.

"Their clothing consists of cloth of different kinds: that worn by the men, which is called *marro*, is about half a yard wide, and four yards long; that of the women, three quarters of a yard wide, and of the same length as the mens: this they call *pah-ouwa*; they both wear it round their middle, but the men pass it between their legs. This is the general dress of both sexes; but the better sort sometimes throw a large piece loosely over their shoulders. Besides the *marro*, they have several other kinds of cloth, which derive their names either from the different uses they are applied to, or their different texture and pattern; all, however, as far as we could learn, are made from the Chinese paper mulberry tree. The principal of these is the *cappa*, which is about 10 or 12 feet long, and nearly as many wide, and is thick and warm; they wrap themselves up in this when they retire to sleep. They have another kind, which is white, and much thinner; this, as has been before observed, they throw loosely over their shoulders; it is sometimes 20 or 30 yards long, and wide in proportion. The *marro* and *pah-ouwa* are curiously painted of various patterns, but the others are generally white, or dyed red, black, and yellow.

"The principal ornaments of the men are the feather-caps and cloaks; some of the latter reach down to their heels, and have a most magnificent appearance. They are made for the most part of red and yellow feathers, which are tied upon fine net-work. The caps are composed of the same kind of feathers, which are sometimes intermixed with black; they are secured upon a kind of basket-work, made in the form of a helmet. Both caps and cloaks are made of various patterns and sizes. The cloaks are not all composed of the same kind of feathers, but are sometimes varied with the long tail-feathers of the cock, with a border of yellow or red, and sometimes with those of the tropic bird. Both caps and cloaks, however, are only to be seen in the possession of the principal people. They have also a kind of fly-flap, made of a bunch of feathers fixed to the end of a thin piece of smooth and polished wood: they are generally made of the tail-feathers of the cock, but the better sort of people have them of the tropic birds feathers, or those belonging

Whyhee
Owling.

ing to a black and yellow bird called *moba*. The handle is very frequently made of one of the bones of the arm or leg of those whom they have killed in battle, curiously inlaid with tortoise-shell: these they deem very valuable, and will not part with them under a great price. This ornament is common to the superiors of both sexes.

"The women too have their share in the ornamental way: that which they value most is the *orai*. This is a kind of ruff or necklace, made of red, green, black, and yellow feathers, curiously put together, and in most elegant patterns, which really do honour to the fancy of the ladies, whose business it is to make them. They never think themselves dressed without one or two of these round their necks, and those who can afford it wear many. Others again are composed of small variegated shells, disposed in a very neat manner; and some consist of several rows of twisted hair, with a piece of carved wood or bone, highly polished, the bottom part forming a curve. The higher the quality of the wearer, the greater is the size of the wood or bone, and the quantity of the twisted hair. The next thing is the *poo-remah* or bracelet; the most valuable are made of boar's tusks fastened together side by side with a piece of string, by means of a hole drilled through the middle; the larger the tusks, the greater the value. Sometimes two shells tied round the wrists with twisted or braided hair, serve the purpose of bracelets; but even in this case they show great nicety, being particularly careful to match them as near as possible. They were prodigiously fond of those we gave them, which were only a few beads, secured by thread upon a strip of scarlet cloth, and made to button round the wrist. So much did they at first value them, that a small hatchet and one of these would purchase a hog, which without it could not have been bought for three large hatchets. The women were perpetually teasing the men to dispose of their various articles for these bracelets; at least one of them was always to make a part of the price." W. Long. 156. O. S. Lat. 19. 28.

OWL, in ornithology. See STRIX.

OWLING, so called from its being usually carried on in the night, is the offence of transporting wool or sheep out of this kingdom, to the detriment of its staple manufacture. This was forbidden at common law, and more particularly by statute 11 Edw. III. c. 1. when the importance of our woollen manufacture was first attended to; and there are now many later statutes relating to this offence, the most useful and principal of which are those enacted in the reign of Queen Elizabeth, and since. The statute 8 Eliz. c. 3. makes the transportation of live sheep, or embarking them on board any ship, for the first offence forfeiture of goods, and imprisonment for a year, and that at the end of the year the left hand shall be cut off in some public market, and shall be there nailed up in the openest place; and the second offence is felony. The statutes 12 Car. II. c. 32. and 7 & 8 Will. III. c. 28. make the exportation of wool, sheep, or fuller's earth, liable to pecuniary penalties, and the forfeiture of the interest of the ship and cargo by the owners, if privy; and confiscation of goods, and three years imprisonment to the master and all the mariners. And the statute 4 Geo. I. c. 11. (amended and farther enforced by 12

Geo. II. c. 21. and 19 Geo. II. c. 34.), makes it transportation for seven years, if the penalties be not paid.

Oxalis,
Oxford.

OXALIS, WOODSORREL: A genus of the pentagynia order, belonging to the decandria class of plants; and in the natural method ranking under the 14th order, *Gruinales*. The calyx is pentaphyllous; the petals connected at the heels; the capsule pentagonal, and opening at the angles. There are seven species; of which the only remarkable is the acetosella, or common woodsorrel. This grows naturally in moist shady woods, and at the sides of hedges in many parts of Britain, and is but seldom admitted into gardens. The roots are composed of many scaly joints, which propagate in great plenty. The leaves arise immediately from the roots upon single long foot-stalks, and are composed of three heart-shaped lobes. They are gratefully acid, and of use in the scurvy and other putrid disorders.

OXFORD, the capital of a county of the same name in England, celebrated for its university, and pleasantly situated in a plain, with a fine fruitful country all around. The composition of the name is obvious. In the British times it seems to have been a place of study. "The wisdom of our ancestors (says Camden), as appears in our history, consecrated even in the British times this city to the muses, translating them from Gre eklade (now a small town in Wilts) hither, as to a more fruitful nursery. For Alexander Necham * * *De Naturae* writes, 'Italy claims superior knowledge of civil law; *tura Rerum*, but the study of divinity and the liberal arts prove, lib. 2. that the university of Paris deserves the preference of all others. Agreeable also to Merlin's prophecy, Wisdom has flourished at the Ford of Oxen, and will in its due time pass over also into Ireland.' But in the following Saxon age, when so many critics were destroyed, it underwent the common fate, and for a long while was famous only for the relicks of Frideswide, who was ranked among the saints for her holy life, merely because she had solemnly devoted herself to God; and prince Algar, soliciting her in marriage, was miraculously, as they say, deprived of his eyesight."

Perhaps the following additional extract from Camden will be more to the purpose in developing the ancient state of learning in this city, than any thing which we could bring forward of our own. "When the storm of the Danish war was over, the most religious prince Alfred * restored their retreats to the long-exiled muses, by founding three colleges, one for grammarians, another for philosophy, and a third for divinity. This will be more fully explained by the following passage in the old annals of the New Monastery at Winchester. 'In the year of our Lord 806, the second year of the arrival of St Grimbald in England, the university of Oxford was begun; the first who presided and read divinity lectures in it being St Neoth, an abbot and able divine; and St Grimbald, a most eminent professor of the incomparable sweetness of the sacred pages; After the monk, an excellent scholar, professing grammar and rhetoric; John monk of the church of St David giving lectures in logic, music, and arithmetic; and John the monk, colleague of St Grimbald, a man of great parts, and a universal scholar, teaching geometry and astronomy before the most glo-

* A.D. 886.

Oxford.

glorious and invincible King Alfred, whose memory will dwell like honey in the mouths of all." Soon after, as we find in an excellent MS. of the said Asser, who was at that time professor here, 'broke out a sharp and fatal quarrel between Grymbold and those very learned men whom he had brought thither with him, and the old scholars whom he found there; who, on his coming, unanimously refused to receive the rules, methods, and forms of lecturing, that Grymbold introduced. Three years had passed without any great difference between them; but the secret aversion afterwards broke out with the utmost violence. In order to quell it, the invincible King Alfred, as soon as he heard of it by the messages and complaints from Grymbold, went in person to Oxford to put an end to the dispute, and he took the greatest pains to hear the causes and complaints on both sides. The foundation of the difference was this: The old scholars maintained, that before Grymbold came to Oxford learning had flourished there, though the scholars at that time were fewer than in more ancient times, the greater part being driven out by the cruelty and oppression of the Pagans. They also proved and showed, and that by the undoubted testimony of ancient chronicles, that the ordinances and regulations of the place were established by certain religious and learned men, such as Gildas, Melkinus, Ninnius, Kentigern, and others, who had all lived to a good old age in these studies, having settled matters there in peace and harmony; and also that St Germanus came to Oxford, and staid there half a year in his journey over Britain to preach against the Pelagian heresies, and wonderfully approved their plan and institution. The king, with unheard-of condescension, gave both parties attentive hearing, and repeated his pious and seasonable advice to maintain mutual union and concord, and left them with the prospect that both parties would follow his advice and embrace his institutions. But Grymbold, offended at this proceeding, immediately retired to the monastery at Winchester lately founded by King Alfred. He also caused his tomb to be removed to Winchester, in which he had intended to lay his bones when his course of life was ended, in the vault under the chancel of St Peter's church at Oxford, which church himself had built from the ground of stone polished in the most costly manner.'

"This happy restoration of learning was followed in a few years by various calamities. The Danes in the reign of Edward plundered and burnt the place; and soon after Harold Harefoot practised the most inhuman barbarities here in revenge for some of his men who were killed in an affray; so that the most melancholy remove of the students ensued, and the university remained almost extinct, a lamentable spectacle till the time of William the Norman. Some have falsely supposed this prince took the city, misled by a wrong reading in some copies of *Oxonia* for *Exonia*. At that time, however, it was the seat of an university, as we learn from these words of Ingulphus, who lived at that time: 'I Ingulphus settled first at Westminster, was afterwards sent to study at Oxford, having made greater proficiency than many of my own age in Aristotle, &c.' What we call an *university*, they in that age called a *study*." Many are of opinion that it was deserted till about the year 1129, and that this desertion

was in consequence of its having been besieged and taken by William the Conqueror. About this year, however, Robert Puleen began to read lectures in divinity, or (as it is expressed in the chronicle of Osney abbey) the Holy Scriptures, which had fallen into neglect in England; and such was the resort of students to it, that in the reign of King John there were not fewer than 3000. Robert d'Oily, a Norman, to whom William the Conqueror had given the greatest part of it, built a castle on the west side in 1071; and he is also supposed to have surrounded it with walls. In a palace built by Henry I. was born Richard I. commonly called *Cœur de Lion*. About the tenth of King John, there happened a quarrel between the citizens and students; in consequence of which many of the latter quitted it, but returned again a few years afterwards. Here Henry III. held a parliament to settle the differences betwixt him and his barons; when he confirmed the privileges granted to the university by his predecessors, and added others of his own. In this reign the students are said to have been 30,000, who were all excommunicated by the pope for some rudeness to his legate. In the time of Duns Scotus, we are told that 30,000 scholars attended his lectures. Matthew Paris styles the university of Oxford, 'the second school of the church after Paris, and the very foundation of the church.' The popes had before this honoured it with the title of *University*, which they had conferred by their decrees on no other but that of Paris, this of Oxford, and those of Bologna and Salamanca. It was decreed in the council of Vienne, that 'schools for the study of the Hebrew, Arabic, and Chaldee languages, should be erected in the studies of Paris, Oxford, Bologna, and Salamanca (as the most considerable), that the knowledge of these languages might prevail by their being thus taught; and that Catholic persons be chosen, sufficiently versed therein, two in each language. For those in Oxford, the bishops, monasteries, chapters, convents, colleges, exempt and not exempt; and the rectors of churches throughout England, Scotland, Ireland, and Wales, were to provide a competent maintenance." In Edw. III.'s time, the scholars were split into two factions, called the *northern* and *southern men*; a division which was attended with many disorders and much violence, but in a short time concord and harmony again prevailed.

As colleges began about this time to be founded and endowed, we shall here present our readers with a list of them, together with the time when, and the persons by whom, they were founded.

Colleges.	Founders.	Kings reigns.
University.	King Alfred.	Alfred.
Baliol.	{ Sir John Baliol, father to the king of Scots.	{ Henry III.
Merton.	{ Walter Merton, lord chancellor and bishop of Rochester.	{ Edward I.
Oriel.	Edward II.	Edw. II.
Exeter.	Walter Stapleton, bishop.	Edw. II.
Queens.	Robert Eglesfield, B. D.	Edw. III.
New College.	{ William of Wickham, bishop of Winchester, lord chancellor.	{ Edw. III.
Lincoln.	{ Richard Fleming, bishop of Lin- coln.	{ Henry VI.
All-Souls.	{ Hugh Chicheley, archbishop of Canterbury.	{ Henry VI.
Magdalen.	{ William Wainfleet, bishop of Win- chester, lord chancellor.	{ Henry VI.
Brazen-Nose.	{ William Smith, bishop of Lincoln, and Richard Sutton, Esq;	{ Hen. VIII.

Corpus.

Oxford.

Oxford.	Colleges.	Founders.	Kings reigns.
Corpus-Christi.	{	Richard Fox, bishop of Winche-	{ Hen.VIII.
		ster, and lord privy-seal.	
Christ-Church.	{	Henry VIII. and Cardinal Wol-	{ Hen.VIII.
		sey.	
Trinity.	{	Sir Thomas Pope.	{ Mary.
St John Baptist.	{	Sir Thomas White, merchant of	{ Mary.
		London.	
Jesus.	{	Queen Elizabeth.	{ Elizabeth.
Wadham.	{	Nicholas and Dorothy Wadham.	{ James I.
Pembroke.	{	Thomas Tisdale, Esq; and Dr	{ James I.
		Richard Whitwick.	
Worcester was called <i>Gloucester-hall</i> till lately, that it was en-			
dowed by Sir Thomas Coke, and made collegiate.			
Hartford was <i>Hart-hall</i> till 1740, that it was erected into a col-			
lege by Dr Richard Newton.			

All these are richly endowed, and have fine gardens, libraries, chapels, &c. The halls in which the students maintain themselves, except a few that have exhibitions, are these: St Edmund's, belonging to Queen's college; Magdalen, to Magdalen college; St Alban's to Merton; St Mary's, to Oriel; New-Inn, to New-college. Several persons have been great benefactors to particular colleges, as Dr Ratcliffe to University college; Colonel Codrington and Dr Clarke, to All-souls; Queen Caroline, to Queen's; the before-mentioned Dr Clarke and Mrs Eaton, to Worcester; Dr Wake, archbishop of Canterbury, to Christ-church. The most considerable of these colleges are Magdalen's and Christ-church, which are as noble foundations as any in the world. The church of the latter is the cathedral, and has a dean, eight canons, eight chaplains, eight singing men, eight choristers, a teacher of music, and an organist. Each of the colleges has its visitor appointed by its statutes, except Christ-church, which is subject to the visitation of the Sovereign alone. The other remarkable buildings belonging to the university are, first, the public schools; secondly, the Bodleian or public library; thirdly, Ratcliffe's library, a most elegant structure, for building and furnishing which, Dr Ratcliffe left 40,000l.; fourthly, the theatre, built by Sheldon, archbishop of Canterbury; fifthly, the museum, in which is an elaboratory and a repository for natural and artificial rarities and antiquities; sixthly, the Clarendon printing-house, so called, because it was built partly with the money arising to the university by the sale of Lord Clarendon's history. To the south of Magdalen college lies the physic garden, instituted by the Earl of Danby, and much improved by Dr Sherrard. It contains five acres, in which is a complete series of such plants as grow naturally, disposed in their respective classes: together with two neat and convenient green-houses, stocked with a valuable collection of exotics, and a hot-house, where various plants brought from the warmer climates are raised. The whole body of the university, including professors, fellows, and students of all sorts, exceeds 3000. Each college has its particular statutes and rules for government. There are four terms in the year for public exercises, &c. and particular days and hours for public lectures by the several professors. The university is governed by a chancellor, high-steward, vice-chancellor, two proctors, a public orator (see *PUBLIC ORATOR*); a keeper of the archives, a register, three esquire-beadles, and three yeomen-beadles. As to the city, it has had the same privileges granted to it as London, particularly an exemption from toll all over England. It was made an episcopal see in 1541,

when Robert King, the last abbot of Osney, was elected Bishop. It is governed by a mayor, high-steward, recorder, four aldermen, eight assistants, two bailiffs, a town-clerk, two chamberlains, all that have borne the office of bailiff and chamberlain, and twenty-four common-council men: but these are subject to the chancellor or vice-chancellor of the university in all affairs of moment; and not only the mayor, but the principal citizens, and sheriff of the county, take an oath to maintain the privileges of the university. The city, including the colleges, is a place of considerable magnitude, having 13 parish-churches, besides the cathedral, well built, clean, and regular. At the entrance of the town from the Woodstock and Banbury roads, a neat hospital hath been lately erected by the trustees of Dr Ratcliffe's benefaction, out of the surplus money remaining after defraying the expence of his library. The male line of the family of Vere, to whom the city had given the title of earl for 500 years, failing in Aubrey de Vere, who was twentieth earl, Queen Anne conferred the title upon Robert Harley, a descendant of the Veres, in whose family it still continues. The chief trade of the city is in malt, conveyed in barges to London. It is impossible, in the narrow bounds necessarily prescribed to this article, to give so particular an account of this celebrated place as its importance demands: but we shall refer our readers to the article *UNIVERSITY*, when this seminary, amongst others, shall be more particularly described.

OXFORDSHIRE, which made part of the territory of the ancient *Dobuni*, a county of England, bounded on the west by Gloucestershire; on the south, where it is broadest, the river Isis divides it from Berkshire; on the east, it is bounded by Buckinghamshire; and on the north, where it terminates in a narrow point, it has on the one side Northamptonshire, and on the other Warwickshire. It extends 50 miles from north to south, and 35 from east to west, making about 130 in circumference: within which are contained one city, 15 market-towns, 280 parishes, 14 hundreds, 534,000 acres, and about 120,000 souls. The air is sweet and pleasant, and the soil rich and fertile. The lower parts consist of meadows and corn-fields, and the higher were covered with woods till the civil wars; in which they were so entirely destroyed, that wood is now extremely scarce and dear, except in what is called the chiltern, and so is coal; of consequence fuel bears an exorbitant price. The county is extremely well watered; for besides the Isis, Tame, Cherwell, Evenlode, and Windrush, there is a great number of lesser rivers and brooks. One of the four great Roman ways passes quite thro' this county, entering at the parish of Chinner, and going out at that of Goring. There is another lesser one, that extends between Colnbrook and Wallingford, called *Grem-fike*. The county sends nine members to parliament, viz. two for the shire, two for the city, two for the university, two for new Woodstock, and one for Banbury.

OXGANG, or **OXGATE**, is generally taken, in our old law-books, for 15 acres, or as much ground as a single ox can plough in a year.

OXUCLÆ, in natural history, the name of a genus of fossils of the class of scintillæ, but of the columnar, not the rhomboidal, kind. Of this genus there are

OXUS
||
Oxyd.

only two known species: 1. A fine kind with thin flakes and transverse filaments, found in the clayey banks of the river Nen, near Peterborough in Northamptonshire; and, 2. A dull kind with thick plates and longitudinal filaments. This is not uncommon in Yorkshire, and lies sometimes in a yellow and sometimes in a blue clay.

OXUS, or JIHUN, a large river of Asia, much taken notice of in ancient histories, but does not rise in the north of India, as most writers affirm; for, according to the best and latest maps made by those who have been upon the spot, it ran a course of about 260 miles from the Caspian Sea to the lake Aral, whose dimensions have lately been discovered, and is but very lately known to the Europeans; but, as it passes through a desert country abounding with sands, the inhabitants so diverted its course, that the old channel can hardly be discovered.

OXYCRATE, in pharmacy, a mixture of vinegar and water, proper to assuage, cool, and refresh. The usual proportion is one spoonful of vinegar to five or six spoonfuls of water.

OXYD, is the term used in the new chemical nomenclature to express a very numerous class of bodies formed by the union of certain bases with a smaller proportion of oxygen than what is necessary for their conversion into acids. (See OXYGENE). The most remarkable of these bodies are what were formerly called metallic calces, and have for their base some metallic substance. It is in this state that metals are contained in their ores, from which they are extracted, and converted into the reguline or metallic form, by the process called *reduction*. Metals are converted into oxyds by combustion, and by solution in acids; and many of them assume this form from the action of the atmosphere alone, but more readily when this is assisted by moisture. During their conversion into oxyds, metals lose their splendor, and, acquiring a considerable increase of absolute weight, put on an earthy, pulverulent appearance. It has of late been supposed that all earths are metallic oxyds, and that all of them would be capable of reduction, were we possessed of any body for which oxygen had a stronger elective attraction than that by which it is kept in conjunction with the bases of these supposed oxyds. But this opinion, being perfectly unsupported by experiment, cannot be admitted in a science which, like the chemistry of the present day, aspires to demonstration.

The term oxyd, however, is not confined to the combinations of metals with oxygen, but expresses that first degree of oxygenation in all bodies which, without converting them into acids, causes them to approach to the nature of salts; and of these there is a prodigious variety; as the oxyd of phosphorus, which is the white concrete substance into which that body is converted by combustion; the oxyd of azote, or nitrous air of Dr Priestley; and a great many others. Most of the oxyds from the vegetable and animal kingdoms have bases compounded of different simple combustible bodies. Thus sugar, all the gums, mucus, and starch, are vegetable oxyds; the bases of which are hydrogen and carbone, combined in various proportions. We find accordingly, that all these bodies are, by farther additions of oxygen, convertible into acids; and it is probable that these acids differ from

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each other only in the proportion of the hydrogen and carbone in their bases. The bases of the animal oxyds are still more complicated; all, or most of them, consisting of various combinations of azote, phosphorus, hydrogen, carbone, and sulphur. See CALX, CHEMISTRY, and TABLE of CHEMICAL NOMENCLATURE.

OXYDATION, is a term employed by the later chemists to express the process by which bodies are converted into oxyds; and it is allowed on all hands to be exactly similar to combustion. The nature of this process has been much disputed; and the question on this subject involves in itself great part of the controversy between the followers of the immortal Stahl and the justly celebrated Lavoisier, the founders of the phlogistic and antiphlogistic theories, which have for some years divided the chemical world. A view of this question, sufficiently distinct, may be taken from the case of metals and their oxyds. Metallic calces (*oxyds* say the phlogistians) are simple bodies, which, when united with phlogiston, form metals. The process of *reduction* consists in exposing the ores of metals to an intense heat in contact with some inflammable body, most commonly charcoal. During this operation, say they, the charcoal being inflamed, parts with its phlogiston, which is immediately absorbed by the calx, and a metal is formed. Lavoisier and his followers, on the contrary, contend that metals are simple bodies; but that in the state of oxyds, that is, as they commonly exist in their ores, they are combined with oxygen. But as oxygen at a high temperature is more strongly attracted by charcoal than by most metals, during the process of reduction the oxyd is decomposed, and the oxygen unites with the charcoal to form carbonic acid, leaving the regulus or metal free. On this point hinges the great question, the decision of which must materially affect almost every part of chemical theory. Without presuming to decide between these two opinions, the former of which is still supported by one or two chemists of the first rank, we agree with Dr Black in thinking that, though there still remain a few facts which have not been thoroughly explained on antiphlogistic principles, this theory is much more simple, and better supported by facts, than any that preceded it. It has this great advantage over the doctrine of Stahl, that it requires not the supposition of an arbitrary body, which does not affect our senses, and of the existence of which we have not even a shadow of proof. Perhaps we may farther venture to assert, that though it may be extremely difficult, or even impossible, to refute the phlogistic theory, influenced as we have all been by a strong prejudice in its favour; yet had it been brought forward for the first time, when our knowledge had arrived at the point which it now holds, it never would have been generally received. See CALCINATION, CHEMISTRY, COMBUSTION, INFLAMMATION.

OXYGENE, a term adopted in the new chemical nomenclature to express the acidifying principle; from *ὄξυς* "acid," and *γενεῖαι* "to generate." It is not found naturally in a separate state, but always combined or mixed with some other substance. In its aeriform or elastic state, it is called by the French chemists *oxygène gas*, and is the same as the *dephlogisticated air* of

4 D

Priestley

Oxydation,
Oxygene.

Oxygene
||
Oyster.

Priestley and Cavendish, the *empyrean* air of Scheele, the *vital* air and *pure* air of other modern chemists. It was called *dephlogisticated* by the followers of Stahl's doctrine, who imagined it to be air deprived of phlogiston; the epithet of *empyrean* was given to it by Mr Scheele, who first discovered it to be the only constituent part of the atmosphere which contributes to support inflammation or combustion. He made many curious experiments on inflammation, and was the first who completely analysed common air, showing it to consist of 27 parts of *empyrean*, 72 of foul, and 1 of fixed air. He found, that these 27 parts only were consumed by a burning body; and that these, during the act of combustion, were united and combined with the inflammable body burnt in them, so as to form a compound no longer combustible. Lavoisier extending these experiments, found that the body, thus produced by *empyrean* air, being combined with the matter of the inflammable body burnt in it, was, in many cases, an acid; in consequence of which property, he gave this air the name of *oxygene*, i. e. "the generator of acidity." He was perhaps too hasty in adopting this name; for the same air is found in combination with inflammable matter, forming compounds that are by no means acid, of which we shall content ourselves with producing only one example, namely *water*, which is the compound resulting from the combination of this air with inflammable air. See WATER.

Common atmospheric air was found by Scheele to promote animal life in a manner somewhat similar to its promoting combustion. He extended his experiments to this subject also; and he concludes, that this *empyrean* air is the only part of the atmosphere which is capable of supporting animal life, and that no animal can exist a minute without it. In consequence of this property it has been called *vital* air. Since, however, it is absolutely necessary for the support both of combustion and of animal life, and since neither of these can exist without it, both the terms *empyrean* and *vital* are deficient, expressing only certain properties of this elastic fluid (which may be also said of the word *oxygene*); and hence some later chemists have suggested the propriety of designing it by the name of *pure* air. See COMBUSTION, INFLAMMATION, CHEMISTRY, AIR, WATER.

OXYGLYCU, a species of drink prepared of the sweetest honey-combs macerated and boiled. The combs, from which all the honey has been expressed, are put into a pot with pure water, and boiled till they seem to have deposited all their contained honey in the water. This liquor is to be kept; and, when diluted with cold water, is to be drank in the summer-time, in order to remove thirst.

OXYMEL, in pharmacy, a composition of vinegar and honey. See PHARMACY.

OYER, in law-books, seems to have been anciently used for what is now called *affises*. See ASSISE.

O YES, a corruption of the French OYEZ, *Hear ye*; a term or formula frequently used by the criers in our courts on making proclamations, or to enjoin silence.

OYSTER, in zoology. See OSTREA.

OYSTER-Catcher. See HÆMATOPUS.

OYSTER-Fishery. See OYSTER-FISHERY and OSTREA.

OYSTERS, Fossile. The largest bed that is known of

fossile oysters is that near Reading in Berkshire. They are entirely shaped, and have the same substance with the recent oyster-shells; and yet since the oldest histories that mention the place give an account of them, we must suppose they have lain there for a long time. They extend over no less than six acres of ground; and just above them is a large stratum of a greenish loam, which some writers call a green earth, and others a green sand. It is composed of a crumbly marle, and a large portion of sand. Under them is a thick stratum of chalk. They all lie in a level bed; and the strata above the shells are natural, and appear never to have been dug through till the time of finding the shells. *Phil. Trans. n^o 261. p. 484.*

The oyster-shells and green earth united make a stratum of about two feet thick; and over this there is a much thicker stratum of a bluish and very brittle clay; but neither has this ever been dug through, except where the shells are found. This is vulgarly denominated *piercy-clay*, and is esteemed useless. This clay-bed is about a yard deep, and above it is a stratum of fuller's earth, about two feet and a half deep; it is extremely good, and is used by the clothiers. Over this there lies a stratum of a fine white sand, unmixed either with the clay or fuller's earth: this is near seven feet deep, and above it is a stratum of a stiff red clay, of which tiles are made. This is again covered with a little vegetable mould; the depth however of this stratum of tile-clay cannot be ascertained, on account of the unevenness of the hill. These oysters are occasionally found whole, but most frequently in single shells. When they are in pairs, there is generally some of the green sand found within them: they seldom stick very fast together; so that unless very carefully taken up, it is not easy to preserve them in pairs.

OYSTER-Shells, an alkali far more powerful than is generally allowed, and are in all probability much better medicines than many of the more costly and pompous alkalis of the same class. The proof of alkalis is in their solution by acid spirits; and Mr Homberg found, that they dissolved far easier in acids of nitre and sea-salt than either pearls or coral, or indeed than any of the rest. This he supposes to be owing to their containing in the body of the shell a large portion of *sal-salsus*, which is easily perceived upon the tongue, and which keeps the whole substance of the shell in a sort of half dissolved state. These shells are found to produce very sensible effects on the stomach, when it is injured by acid humours; and Mr Homberg thinks, that this easiness of solution is a great argument for their good effects, and that the quantity of *sal-salsus* which it contains, contributes not a little towards it; for we are not to look upon that as a salt merely, but as a salt of a peculiar nature, formed of sea-salt by the organs of the animal, and the several fermentations it undergoes in the body of it, in the same manner as the nitrous and other salts of the earth cease to be nitrous, &c. whenever they become blended with the juices of plants, and form with them a salt peculiar to that plant; which is evidently the case as far as respects this salt, it being plainly of a more penetrating taste, and of a different smell, from the salt left by the sea-water between the several external scales or flakes of the shell. *Mem. Acad. Par. 1700.*

Ozma
||
Ozell.

shell. Oyster-shells being thus found by Mr Hem-berg to be a very valuable medicine, and as one of the common methods of preparing them is by calcination, which, he observes, considerably impairs their virtues, he gives the following method of preparing them for taking inwardly, which he himself always used. Take the hollow shells of the oysters, throwing away the flat ones, as not sufficiently good; make them perfectly clean, and then dry them in the sun; when they appear dry, beat them to pieces in a marble mortar: they will still be found to contain a large quantity of moisture; lay them therefore again in the sun till perfectly dried, and then finish the powdering them, and sift the powder through a fine sieve. Give 20 or 30 grains of this powder every morning, and continue it three weeks or a month. See CHEMISTRY, n^o 1087.

OZÆNA, a foul and malignant ulcer of the nose, distinguished by its fœtor, and often accompanied with a caries of the bones of the nose.

OZANAM (James), an eminent French mathematician, born at Boligneux in Bresse, in 1640, of a wealthy family. His father gave him a good education, and designed him for the church: but some mathematical books falling into his hands, inspired him with a love for that science; and though he had no master to instruct him, he made such progress in it, that, at 15 years of age, he wrote a piece in mathematics, which he thought proper to insert in the works he afterwards published. He at length taught that science at Lyons; and his mathematical lessons brought him in a considerable revenue, till the year 1701: at which period, a war breaking out on the succession to the crown of Spain, he lost almost all his scholars, and was reduced to a very melancholy situation; and his wife dying the same year, he was so afflicted, that he never perfectly recovered it. In 1702 he was admitted into the Royal Academy of Sciences; and died of an apoplexy in 1717.—He was of a mild and serene temper, of singular generosity, and of a cheerful disposition.—He would not allow himself to know more of religion than the common people. He used to say, that “it was the business of the doctors of the Sorbonne to dispute, of the pope to decide, and of a mathematician to go to heaven in a perpendicular line.” His works are very numerous, and have met with the approbation of the learned. The principal are, 1. Practical geometry, 12mo. 2. A mathematical dictionary. 3. A course of mathematics, 5 vols, 8vo. 4. Mathematical and philosophical recreations, the most complete edition of which is that of 1724, in 4 vols, 8vo. 5. An easy method of surveying. 6. New elements of algebra, a work much commended by Monf. Leibnitz. 7. Theoretical and practical perspective, &c.

OZELL (John), a well-known translator, educated in Christ's Hospital, was possessed of a competent fortune, and always enjoyed good places, be-

ing auditor-general of the city and bridge accounts, of St Paul's cathedral, and of St Thomas's hospital. Notwithstanding his attention to business, he still retained a love for polite literature: and though he did not appear as an original author, yet having made himself master of most of the living languages, he favoured the world with many translations from these, as well as from the Latin and Greek; which, if they are not the most elegant, are generally faithful and true to the originals. He died in the year 1743.

OZIAS, in sacred history, the son of Micha, of the tribe of Simcon, one of the governors of Bethulia when it was besieged by Holofernes. He vigorously supported the siege against this general, and received Achior into his house, when he had been driven from the Assyrian camp. Finding however at length that the city was reduced to great necessity for water, and that the people mutinied against him, he promised to surrender the place in five days, if in that time God did not send them relief. Judith (vi. vii. viii. ix. and x.) being informed of this resolution, sent to speak with Ozias and the other leading men of the city; made a prudent remonstrance upon their seeming to prescribe a time to the Lord, in which he must succour them; encouraged them to patience; and without discovering her design, told them that she would go out in the night. Ozias being at the gate of the city when Judith departed, opened it to her, and waited in the city for the success of her undertaking, praying with her people to God that he would be pleased to deliver them. See the article JUDITH.

OZLEWORTH, in England, in Gloucestershire, about 18 miles from Gloucester. It is remarkable for nothing but that in one year, during the reign of Queen Elisabeth, there were no less than 231 foxes killed at it.

OZOLÆ, or OZOLI, a people who inhabited the eastern parts of Ætolia which were called *Ozolea*. This tract of territory lay at the north of the bay of Corinth, and extended about 12 miles. They received their name from the bad stench (ὀσμή) of their bodies and clothes, which were the raw hides of wild beasts. Some derive it from the stench of the stagnated water in the neighbouring lakes and marshes. According to a fabulous tradition, they received their name from a very different circumstance: During the reign of a son of Deucalion, a bitch brought into the world a stick instead of whelps. The stick was planted into the ground by the king, and it grew up to a large vine, and produced grapes, from which the inhabitants of the country were called *Ozolea*, not from ὀσμή, “to smell bad,” but from ὄσος, “a branch or sprout.” The name *Ozolea*, on account of its indelicate signification, was highly disagreeable to the inhabitants; they therefore exchanged it soon for that of Ætolians.

Ozias
||
Ozolæ.

P.

P A C

P.
||
Pace.

P, the 15th letter and 11th consonant of the alphabet; the sound of which is formed by expressing the breath somewhat more suddenly than in forming the sound of *b*; in other respects these two sounds are pretty much alike, and are often confounded one with another. When *p* stands before *t* or *f*, its sound is lost; as in the words *psalms*, *psychology*, *ptolemaic*, *ptisan*, &c. When placed before *b*, they both together have the sound *f*; as in *philosophy*, *physic*, &c.

P and *B* are so like each other, that Quintilian declares, that in the word *obtinuit*, his reason required him to put a *b*, but that his ears could hear nothing but a *p*, *optinuit*: hence in ancient inscriptions, and old glossaries, it appears that these two letters have often been confounded. Several nations still pronounce one for the other, the Welch and Germans particularly, who say, *ponum vinum*, for *bonum vinum*. Plutarch observes, it was usual for those of Delphi to say *βαλειν* for *παλειν*, *βικρον* for *πικρον*; and among the Latins, as often as an *s* followed, the *b* was changed into a *p*, as *scribo*, *scripsi*.

As an abbreviation, *P* stands for *Publius*, *Pondo*, &c. *P. A. DIG.* for *Patricia Dignitas*; *P. C.* for *Patres Conscripti*; *P. F.* for *Publii Filius*; *P. P.* for *Propositum*, or *Propositum publice*; *P. R.* for *Populus Romanus*; *P. R. S.* for *Prætoris sententia*, *P. R. S. P.* for *Præses provincie*.

P. M. among astronomers, is frequently used for *post meridiem*, or "afternoon;" and sometimes for *post mane*, "after the morning, i. e. after midnight." *P* was also used among the ancients as a numeral letter, signifying the same with the *G*, viz. a hundred; according to the verse of Ugutio,

P similem cum G numerum monstratur habere.

Though Baronius thinks it rather stood for seven.

When a dash was added a-top of *P*, it stood for four hundred thousand.

St Jerome observes, on Daniel, that the Hebrews had no *P*; but that the *ph* served them instead thereof; adding that there is but one word in the whole Bible read with a *P*, viz. *apadno*. The Greek *π* signified 80. On the French coins, *P* denotes those that were struck at Dijon.

In the Italian music, *P* stands for *piano*, or "softly;" and *P. P. P.* for *pianissimo*, or "very softly."

Among physicians, *P* stands for *pugil*, or the eighth part of an handful; *P. Æ.* *partes æquales*, or equal parts of the ingredients; *P. P.* signifies *pulvis patrum*, or Jesuit's bark in powder; and *ppt. preparatus* or prepared.

PABULUM, among natural philosophers, the same with **FUEL**.

PACA, see **Mus**, p. 465.

PACE, a measure taken from the space between

P A C

Pace.

the two feet of a man in walking; usually reckoned two feet and a half, and in some men a yard or three feet. The geometrical pace is five feet; and 60,000 such paces make one degree on the equator.

PACE, in the manege, is of three kinds, viz. walk, trot, and gallop; to which may be added an amble, because some horses have it naturally.

Horses which go shuffling, or with mixed paces between the walk and amble, are for the most part of no value; which commonly proceeds from their fiery temper, but sometimes from a weakness in their reins or legs.

PACE (Richard), a learned Englishman, born about the year 1482. He was educated at the charge of Thomas Langton bishop of Winchester, whom he served as an amanuensis, and afterwards entered into the service of cardinal Bainbridge. His accomplishments rendered him so acceptable to Henry VIII. that he made him secretary of state; and, entering into orders, he was admitted præbendary in the church of York, archdeacon of Dorset, and dean of St Paul's, &c. which preferments were conferred on him during his absence on foreign embassies. In 1524 he was sent to Rome on the death of Pope Leo X. to solicit the papal chair for cardinal Wolsey; but a new pope was elected before his arrival, a circumstance that proved the epocha of his troubles. He fell under the displeasure of the disappointed cardinal; and being soon after employed as ambassador at Venice, he was so neglected and hardly used, that he was seized with a frenzy: upon which the king ordered him home; and being carefully attended by the physicians at the king's command, he was in a short time restored to the use of his reason, and then applied himself to the study of the Hebrew tongue. Being now introduced to his Majesty, he remonstrated against the cardinal's cruelty: who being ordered to clear himself, summoned Pace before him, sitting in judgment with the duke of Norfolk and others; who condemned Pace, and sent him to the Tower; where he remained two years, till he was discharged by the king's command.—When he was enlarged, he resigned his deaneries, and died in retirement at Stepney in 1532; after having wrote several works. There is an elegant and just character of him by Leland, written upon his return from Venice. He was much esteemed by the learned men of his time, especially Sir Thomas More and Erasmus. The latter had a great opinion of Pace on account of his candour and sweetness of temper; so that he was much afflicted at his misfortunes, and could never forgive the man that caused them. Stow gives him the character of a right worthy man, and one that gave in council faithful advice: learned he was also, says that antiquary, and endowed with many excellent parts and gifts of nature; courteous, pleasant, and delighting in music; highly in the king's favour, and

Pachamac and well heard in matters of weight. There is extant a remarkable letter of his to the king, written in 1527, wherein he very honestly gives his opinion concerning the divorce; and Fiddes observes, that he always used a faithful liberty to the cardinal, which brought him at last to confinement and distraction.

PACHAMAC, a valley of Peru, in South America, ten miles south of Lima; celebrated for its pleasantness and fertility, but more on account of a magnificent temple built by the Incas of Peru, to the honour of their god. When the Spaniards conquered Peru, they found immense riches therein.

PACHODECARHOMBIS, in natural history, the name of a genus of fossils, of the class of *selenitæ*. The word is derived from the Greek *παχὺς* thick, *δύο* ten, and *ρομβος* a rhombus, and expresses a thick rhomboidal body composed of ten planes. The characters of this genus are, that the selenitæ of it consist of ten planes; but as the top and bottom in the leptodecarhombes, or most common kind of the selenitæ, are broader and larger planes than any of the rest, the great thickness of this genus, on the contrary, makes its four longer planes in all the bodies of it, meeting in an obtuse angle from its sides, its largest planes. There are four species of it.

PACHSU, a small island in the Mediterranean sea; near the coast of Epirus, and in European Turkey. It lies south of Corfu, and is subject to Venice.

PACIFIC OCEAN, that vast ocean which separates Asia from America. It is called *Pacific*, from the moderate weather the first mariners who sailed in it met with between the tropics: and it was called *South Sea*, because the Spaniards crossed the isthmus of Darien from north to south when they first discovered it; tho' it is properly the Western ocean with regard to America.

Geographers call the South Sea *Mare Pacificum*, "the Pacific Ocean," as being less infested with storms than the Atlantic; but M. Frezier affirms it does not deserve that appellation, and that he has seen as violent storms therein as in any other sea: but Magellan happening to have a very favourable wind, and not meeting with any thing to ruffle him when he first traversed this vast ocean in 1520, gave it the name which it has retained ever since. Maty, however, adds, that the wind is so regular there, that the vessels would frequently go from Acapulco to the Philippine Islands without shifting a sail.

PACK, in commerce, denotes a quantity of goods made up in loads or bales for carriage. A pack of wool is 17 stone and 2 pounds, or a horse's load.

PACKAGE, is a small duty of one penny in the pound, paid for all goods not particularly rated.

PACKE, or *PACKET Boat*, a vessel appointed by the government to carry the mail of letters, packets, and expresses from one kingdom to another by sea in the most expeditious manner. Thus, the packet-boats, under the direction of the post master-general of Great Britain, carry the mails from Dover to Calais, from Falmouth to Lisbon, from Harwich to Helvoetsluys, and from Parkgate to Dublin. See **POST**.

PACOS, in zoology, a name given to a species of

camel, commonly though improperly reckoned a species of sheep; and known among many by the name of the *Indian sheep*, or *Peruvian sheep*. See **CAMELUS**, p. 60.

Pactolus
||
Paderborn.

This creature has been accounted a sheep, because its hair is so long as to resemble wool, and it is prodigiously thick, its head and neck alone having more wool on them than the whole body of our largest sheep. Its body is clothed in the same proportion with a woolly hair equally fine.

PACTOLUS (anc. geog), a river of Lydia, called *Chrysorrhœas*, from its rolling down golden sand, according to Herodotus, Plutarch, Pliny, and Strabo; rising in mount Tmolus (Strabo). From this river Cræsus is thought to have had all his riches. In Strabo's time it ceased to roll down any. It ran through Sardes; after which it fell into the Hermus, and both together into the *Ægean sea* at Phocæa in Ionia. A river celebrated by Virgil, Ovid, Lucon, Lycophron, Horace, Apollonius.

PACUVIUS (Marcus), of Brundisium in Calabria, a tragic poet in high reputation about the year of Rome 600. He was nephew of Ennius; published several theatrical pieces, tho' we have only some fragments of his poetry remaining; and died at Tarentum at above 90 years of age.

PADAN-ARAM (Bible), literally *the plains of Aram*, or *Syria*; translated by the Seventy simply *Mesopotamia*, or *Mesopotamia of Syria*; by the Vulgate, *Syria*; the Syrians on this and on the other side of the Euphrates, not differing remarkably from each other in language and manners, as Josephus allows.

PADDOC, or *PADDOC-Course*, a piece of ground encompassed with pales or a wall, and taken out of a park, for exhibiting races with greyhounds, for plates, wagers, or the like.

A paddoc is generally a mile long, and a quarter of a mile broad: at the one end is a little house where the dogs are to be entered, and whence they are slipped; near which are pens to inclose two or three deer for the sport. Along the course are several posts, viz. the low post, which is 160 yards from the dog-house and pens; the quarter of a mile post, half-mile post, and pinching post; besides the ditch, which is a place made to receive the deer, and preserve them from farther pursuit. And near this place are seats for the judges chosen to decide the wager.

The keepers, in order to slip the dogs fairly, put a falling collar upon each, slipped round a ring; and the deer being turned loose, and put forward by a teaser, as soon as he is arrived at the low-post, the dog-house door is thrown open, and the dogs slipped. If now the deer swerve so much, as that his head is judged nearer the dog-house than the ditch before he arrive at the pinching-post, it is no match, and must be run over again three days a ter: but if the deer runs straight beyond the pinching-post, then that dog which is nearest when he swerves, or is blundered by any accident, wins the match; but if no such swerve happens, then the match is won by the dog who first leaps the ditch.

PADERBORN, a duchy of Germany in the circle of Westphalia, has the county of Lippe on the north and west; Hesse-Cassel and Waldeck, on the south; and

Paderborn. and Munster, with the duchy of Westphalia, on the west. Its greatest length from east to west is about 40 miles, and its breadth where widest 30. Some parts of it yield good pasture, and breed abundance of cattle; but it is not very fruitful in corn. There is a heath called the *Senne* or *Sende*, of great extent, but very barren and desolate. There are, however, good iron mines in the country, with salt and medicinal springs, plenty of deer and other game; and it is watered with several rivers abounding with fish, as the *Weser*, the *Dimer*, the *Bever*, the *Nette*, the great *Emmer*, the *Lippe*, the *Alme*, and the *Pader*. It contains 54 parishes, in which are 25 market-towns and 16 monasteries. The Roman Catholic is the predominant religion of the country, yet there are also many Protestants in it. The bishopric was erected by Charlemagne, towards the close of the eighth century; and the cathedral was consecrated by pope Leo in person, anno 796. The bishop is sovereign of the country, a prince of the empire, and suffragan of the archbishop of Mentz. His revenue is about 30,000 pounds a-year, and he is able to raise 3000 men. In the matricula, his assessment is 18 horse and 34 foot, or 352 florins monthly in lieu of them. Towards the charges of the sovereign courts of the empire, he pays for each term 162 rix-dollars and 29 kruitzers. The chapter consists of 24 capitular canons, who must prove their noble extraction by four descents. The arms of the bishopric are a cross or, in a field gules. For the government of it, and the administration of justice, there are several councils and colleges under the bishop. Here are also a hereditary marshal, sewer, cup-bearer, chamberlain, steward, and purveyor. It was in this bishopric that Quintilius Varus, with the Roman army under his command, was routed by the Germans under Arminius.

PADERBORN, the capital of the above bishopric. It stands 40 miles north-west of Cassel, 50 south-east of Munster, and 60 south-west of Hanover; being a large, populous, well-built, and well-fortified city. Its name is compounded of *pader*, a rivulet, which rises just under the high altar of the cathedral, and *born*, i. e. a spring. It was one of the Hanse-towns; and, till 1604, an imperial city. The cathedral is a grand fabric, inferior to few in the empire. There is a gold crucifix in it of 60 pounds weight, presented by Otho II. The university, of which the Jesuits have the direction, was founded in 1592, and the walls were built in the beginning of the 11th century. In 1530 an attempt was made to introduce Lutheranism; but 16 of the principal citizens who had embraced it were executed, and the rest obliged to abjure it. Duke Christian of Brunswick carried off from hence, in 1692, the silver images of the twelve apostles, and the silver coffin of St Lotharius; and had them coined into money, with this inscription, *God's Friend, the Priests Enemy*. The trade of this town, though formerly great, is now inconsiderable; and the inhabitants subsist mostly by agriculture and breeding of cattle. Though the bishop has a palace in the city, he resides (when he vouchsafes to visit this country, which is seldom, having other and more valuable benefices) at Neuhaus, seven miles off, where he has a magnificent castle. Charlemagne and other em-

perors sometimes resided here, and held diets of the empire.

PADOGI, a punishment used in Russia. The body of the criminal is stripped to the waist, and then laid upon the ground; one slave holds the head of the person to be punished between his knees, and another the lower part of the body; then rods are applied to the back till some person gives notice to desist, by crying out, enough. This punishment is considered in Russia merely as a correction of the police, exercised on the soldier by military discipline, by the nobility on their servants, and by persons in authority over all such as are under their command. After the accession of Elizabeth to the throne of Russia, the punishments were reduced to two kinds, viz. the padogi and KNOUT.

PADUA, an ancient, large, and celebrated city of Italy, with an university and a bishop's see. It is also capital of the *Paduano*; but is much less considerable than it was formerly: for it now contains no more than 30,000 inhabitants, whereas it formerly had 100,000, and many of the houses are gone to ruin: however, the hall where justice is administered is a superb structure. The cathedral church, and the college of the university, are in that part called the *Old Town*; and there are piazzas under all the houses, where persons may walk without being exposed to the weather. The garden of the university is curious, on account of the number of plants. Here a student may take his degrees, let him be of what sect of Christianity he will; nay, though he should be a Jew or a Turk. The patron of this city is St Anthony, who lies in the cathedral; they have such a veneration for him, that the beggars do not ask charity in the name of God, but for the love of St Anthony. The Jews live in a distinct part of the city; and the neighbouring mountains produce excellent wine and oil, with delicious fruit. It was taken by the Venetians in 1706. It is seated on the rivers *Brenta* and *Bachiglione*, in a fine plane; and is about seven miles in circumference. E. Long. 11. 55. N. Lat. 45. 24.

PADUAN, among the medalists, a modern medal struck in imitation of the antique, or a new medal struck with all the marks and characters of antiquity. This name is properly applicable to those medals only that were struck in the seventh century by an Italian painter born at Padua; who succeeded so well in the imposture, that the best judges are at a loss to distinguish his medals from the genuine ones. Though it is frequently used in general for all medals of this kind.

PADUANO, a small province of Italy, in the territory of Venice, bounded on the east by the *Dogado*, on the south by the *Polesino di Rovigo*, on the west by the *Veronese*, and on the north by the *Vicentino*. Its soil is well watered; and is one of the most fertile in Italy. The province is about 40 miles in length, and 35 in breadth. Padua is the capital town.

PADUS, anciently called *Eridanus*, especially by the Greeks; a river famous for the fable of Phæton, (Ovid). It rises in mount *Vesulus*, in the *Alpes Cothiae*, from three springs, dividing the *Cisalpine Gaul* into the *Transpadana* and *Cispadana*, (Strabo); and, swelled by other rivers falling into it on each side from the

Padogi
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Padus.

Padus
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Pagan

the Alps and Apennines, it discharges itself with a course from west to east, at seven mouths, into the Adriatic (Mela). The lake thro' which it discharges itself into the sea, is called by the natives the *Seven Seas*. Now the *Po*.

PADUS, in botany. See PRUNUS.

PÆAN, among the ancient pagans, was a song of rejoicing sung in honour of Apollo, chiefly used on occasions of victory and triumph. See APOLLO.

PÆAN, in the ancient poetry, a foot consisting of four syllables; of which there are four kinds, the pæan primus, secundus, &c.

The pæan primus consists of one long syllable and three short ones, or a trochæus and pyrrhichius, as *temporibus*; the pæan secundus consists of a short syllable, a long, and two short, or an iambus and a pyrrhichius, as *potentia*; the pæan tertius consists of two short syllables, a long and a short one, or a pyrrhichius and a trochæus, as *animatus*; the pæan quartus consists of three short syllables and a long one, or a pyrrhichius and iambus, as *celeritas*.

PÆDEROTA, in botany: A genus of the monogynia order, belonging to the pentandria class of plants; and in the natural method ranking under the 30th order, *Contorta*. The berry is empty, brittle, and dispermous; the style bifid.

PÆDO BAPTISM; infant-baptism, or that conferred on children; from *pais* infant, and *baptismus* baptism. This has been the subject of great controversy in the church. See ANABAPTISTS, BAPTISTS, &c.

PÆONIA, PIONY: A genus of the digynia order, belonging to the polyandria class of plants; and in the natural method ranking under the 26th order, *Multiflora*. The calyx is pentaphyllous; the petals five; there are no styles; the capsules are polyspermous. There are two species, both of them very hardy, and will flourish in any common soil. They are large herbaceous flowery perennials, with tuberous roots, sending up strong annual stalks from one to three feet in height; terminated by very large flowers of a beautiful red colour, and much larger than any rose. The common officinal, or male piony, also is remarkable for its capsules turning backward, opening and displaying their red inside, together with the numerous seeds, in a singularly agreeable order, appearing very ornamental after the flower is past. The plants may be propagated either by parting the roots or by seed. This plant was formerly celebrated in nervous distempers, but the present practice pays very little regard to it.

PÆSTUM, called *Posidonia* by the Greeks, a town of Lucania, on the Sinus Pæstinus; an ancient colony prior to the first Punic war, according to Livy; but later, according to Velleius. *Pæstane rose* were in great esteem, and produced twice a-year (Virgil, Ovid).

PAGAN (Blaise François Compté de), an eminent French mathematician, was born at Avignon in Provence, March 3. 1604; and took to the profession of a soldier at fourteen, having been bred to it with the greatest care. In 1620 he was engaged at the siege of Caen, in the battle of Pont de Ce, and the reduction of the Navareins, and the rest of Bearn; where he signalized himself, and acquired a reputation far surpassing his years. He was present, in 1621, at the siege of St John d'Angeli, as also that of Clarac and

Montauban, where he lost his left eye by a musket-shot. At this siege he had another loss, which equally afflicted him, viz. that of the constable of Luynes, who died there of a scarlet fever. The constable was a near relation, and had been his patron at court. He did not, however, sink under the misfortune, but on the contrary took fresh spirits from the necessity he was now in of trusting solely to himself. Accordingly there happened after this time neither siege, battle, nor any other occasion, in which he did not signalize himself by some effort of courage and conduct. At the passage of the Alps, and the barricade of Suza, he put himself at the head of the forlorn hope, consisting of the bravest youths among the guards; and undertook to arrive the first at the attack, by a private way which was extremely dangerous; when, having gained the top of a very steep mountain, he cried out to his followers, "See the way to glory!" He slipped along this mountain; and, his companions following him, they came first to the attack, as they wished to do. They immediately began a furious assault; and, the army coming to assist, they forced the barricades. He had afterwards the pleasure of standing on the left hand of the king, when his majesty related this heroic action to the duke of Savoy with the deserved commendations, in the presence of a very full court. When the king laid siege to Nancy in 1633, our hero had the honour to attend his sovereign, in drawing the lines and forts of circumvallation. In 1642 his majesty sent him to the service in Portugal, in the post of field marshal. In this same year he unfortunately lost his eye-sight by a distemper. But though he was thus disabled from serving his country with his conduct and courage, he reassumed, with greater vigour than ever, the study of the mathematics and fortification; and, in 1645, gave the public a treatise on this latter subject. It was allowed by all who understood the science, that nothing had then appeared that was preferable to it; and indeed, whatever improvements have been made since, they have perhaps been derived chiefly from this treatise, as conclusions from their principles. In 1651 he published his *Geometrical Theorems*, which show a perfect knowledge of all the parts of the mathematics. In 1655 he printed *A Paraphrase, in French, of the Account, in Spanish, of the River of the Amazons*, by Father de Rennes, a Jesuit; and we are assured, that, though blind, he drew the chart of that river and the parts adjacent which is seen in this work. In 1657 he published *The Theory of the Planets*, cleared from that multiplicity of eccentric circles and epicycles, which the astronomers had invented to explain their motions. This work distinguished him among astronomers as much as that of fortification did among engineers; and he printed, in 1658, his *Astronomical Tables*, which are very succinct and plain. Few great men are without some foible: Pagan's was that of a prejudice in favour of judicial astrology; and though he is more reserved than most others, yet we cannot put what he did on that subject among those productions which do honour to his understanding. He was beloved and respected by all persons illustrious for rank as well as science; and his house was the rendezvous of all the polite and worthy both in city and court. He died at Paris Nov. 18. 1665; and was never married. The king ordered

Pagan.

Paran
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Pagi.

ordered his first physician to attend him in his illness, and gave several marks of the extraordinary esteem which he had for his merit.

He had an universal genius; and, having turned himself entirely to the art of war, and particularly to the branch of fortification, he made extraordinary progress in it. He understood mathematics not only better than is usual for a gentleman whose view is to push his fortune in the army, but even to a degree of perfection superior to that of the ordinary masters who teach that science. He had so particular a genius for this kind of learning, that he obtained it more readily by meditation than by reading authors upon it; and accordingly spent less time in such books than he did in those of history and geography. He had also made morality and politics his particular study; so that he may be said to have drawn his own character in his *Homme Heroique*, and to have been one of the completest gentlemen of his time. Louis XIII. was heard to say several times, that the Count de Pagan was one of the most worthy, best turned, most adroit, and most valiant men, in his kingdom.—That branch of his family, which removed from Naples to France in 1552, became extinct in his person.

PAGAN, a heathen, gentile, or idolater; one who adores false gods. See MYTHOLOGY.

PAGANALIA, certain festivals observed by the ancient Romans in the month of January. They were instituted by Servius Tullius, who appointed a certain number of villages (*pagi*), in each of which an altar was to be raised for annual sacrifices to their tutelar gods; at which all the inhabitants were to assist, and give presents in money, according to their sex and age, by which means the number of country-people was known. The servants upon this occasion offered cakes to Ceres and Tellus, to obtain plentiful harvests.

PAGANELLUS, in ichthyology. See GOBIUS.

PAGANISM, the religious worship and discipline of pagans; or, the adoration of idols and false gods. See IDOLATRY, MYTHOLOGY, and POLYTHEISM.

PAGEANT, a triumphal car, chariot, arch, or other like pompous decoration, variously adorned with colours, flags, &c. carried about in public shows, processions, &c.

PAGI (Antony), a very famous Cordelier, and one of the ablest critics of his time, was born at Ragne in Provence in 1624. He took the habit in the convent at Arles in 1641, and was at length four times provincial of his order; but his religious duties did not prevent his vigorous application to the study of chronology and ecclesiastical history, in which he excelled. His most considerable work is, *A Critique upon the Annals of Baronius*; where, following the learned cardinal year by year, he has rectified an infinite number of mistakes both in chronology and in the representation of facts. He published the first volume in 1689, dedicated to the clergy of France, who allowed him a pension: the whole was printed after his death, in 4 vols folio, at Geneva, in 1705, by the care of his nephew Francis Pagi, of the same order. He wrote some other things before his death, which happened in 1699; and had the character of an able historian as well as of a learned and candid critic. His nephew Francis, above-mentioned, wrote *A Chronological*
Nº 255.

Abridgment of the History of the Popes, in Latin, Pagninus.
3 vols 4to. Francis had also a nephew, Anthony Pagi, who added three more volumes to the History of the Popes; of which two more were intended, if not executed.

PAGNINUS (Sanctes), an Italian Dominican, eminent for his skill in Oriental languages and biblical learning, was born at Lucca in 1466, and became afterwards an ecclesiastic of the order of St Dominic. He was deeply and accurately skilled in Latin, Greek, Hebrew, Chaldee, and Arabic; but he was particularly excellent in the Hebrew. He applied himself to examine the vulgar translation of the Scriptures; and believing it to be either not of Jerome, or greatly corrupted, he undertook to make a new one from the present Hebrew text; in which he meant to imitate St Jerome, who set about making a new translation at a time when the church would admit no other but the Septuagint. This design of Pagninus, so early after the restoration of letters, seemed a bold one; yet such was the reputation of the man, that it was approved by Pope Leo X. who promised to furnish him with all necessary expences for carrying on the work; and, besides, we find at the beginning of this translation, which was printed at Lyons in 1527, two letters of the succeeding popes, Hadrian VI. and Clement VII. which licensed the printing of it. Pagninus, in his Letters to Pope Clement, for the printing of this translation, openly declares, that the Vulgar edition, as it is at present, is not St Jerome's; yet adds, that he has retained in his translation as much of it as he could. It appears by a letter of Picus Mirandula to Pagninus, that he had spent 25 years upon this translation. It is the first modern translation of the Bible from the Hebrew text; and the Jews who read it affirmed, that it agreed exactly with the Hebrew, and was in some respects superior to the ancient translations. The great fault of Pagninus was, that he adhered with too great servility to the original text; and this scrupulous attachment made his translation, says Father Simon, "obscure, barbarous, and full of solecisms. He imagined, that to make a faithful translation of the Scriptures, it was necessary to follow exactly the letter according to the strictness of grammar. This, however, is quite contrary to his pretended exactness, because two languages seldom agree in their ways of speaking; and therefore, instead of expressing the original in its proper purity, he defaces and robs it of all its ornaments." Father Simon nevertheless allows the great abilities and learning of Pagninus; and all the later commentators and translators of the Scriptures have agreed in giving him his just praise. Huetius, though he thinks Father Simon's criticism of him just and well grounded, yet proposes his manner as a model for all translators of the sacred books: *Scriptura interpretandæ rationis utile nobis exemplar proposuit Sanctus Pagninus*. He also translated the New Testament from the Greek, as he had done the Old from the Hebrew, laying the Vulgar all the while before him; and dedicated it to pope Clement VII. He was author of an Hebrew Lexicon, and an Hebrew Grammar: which Buxtorf, who calls him *vir linguarum Orientalium peritissimus*, made great use of in compiling his. He died in 1536, aged 70. Luther spoke of him and his translations in terms of the highest applause.

PAGO,

Pago.

PAGO, an island in the gulph of Venice, separated from the continent of Morlachia by a narrow channel. The ancient geographers have left us no description of it; "though (as Fortis observes) its form (A), extent, and rich produce, unquestionably deserved it." And this is the more unaccountable, as we know the Romans were well acquainted with it; and on the other islands adjoining to it are many vestiges of buildings, inscriptions, tiles, and hewn stones, all sure signs of Roman habitations. Its ancient name was in all probability *Portunata*. "This island (says Mr Fortis*) is extended from north to south over against maritime Croatia, or the mountain Morlacca. It is about 50 miles long; its breadth is unequal. One particular circumstance distinguishes it from all the other islands of the Adriatic, and is a large internal salt-water lake 15 miles long from south to north, into which the sea enters by a canal not above a quarter of a mile broad in some places. This lake is frequented by the tunny fish, which, when once in, cannot return again to the sea. There are also two smaller lakes on the island; one near Vlassich, abounding in fish, particularly eels; and one near the hamlet of Slabine.

* Travels
into Dal-
matia.

"In this island the winter is dreadfully cold, and the summer scorchingly hot. Those who have been there in the winter time speak of it as a Siberia quite covered with snow and ice, and always exposed to the cold north wind; I, who was there in the hot season, thought it equal to the most scorching parts of the world. The naked rocks, which not only form the organization, but also the superficies of almost all the island; the narrowness of the valleys; the reverberation of the water of the lake, generally quite calm in summer; multiply the heat so prodigiously among those stones, that the vines, which are planted all round the lake, ripen the grapes by the beginning of August: and the few other products that grow there anticipate the usual time of maturity in the same manner. The meteors are exceedingly irregular in the summer time; sudden whirlwinds are frequent, and heavy showers of rain: the last are hurtful to the inhabitants of one part of the island, and favourable to the cultivation of the opposite end.

"They cultivate neither corn nor oil on this island; but it produces plenty of wine, and an immense quantity of salt. The other products are wool, honey, and a little salt fish. The quantity of wine amounts annually, on a medium, to 40,000 Venetian barrels;

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and from the husks they distil 2000 barrels of *rakia* or brandy. The salt, in 1663, amounted to 800,000 Venetian *flars*. The salt-works are well contrived and well kept: they extend along a shallow pool, which forms the eastern extremity of the lake within for four miles in length and about half a mile in breadth. On the sides of this fen the best part of the vines lie; but the upper part of the hills on each side is altogether naked and barren; there is not even a sufficiency of fire-wood, and the inhabitants are obliged to provide themselves elsewhere. The soil at the foot of the hills, where the vines are planted, is full of gravel and small stones; and hence the wine is of good quality. The air is not unhealthful, notwithstanding the vicinity of the salt-pits; but the frequent high winds carry off the noxious exhalations. The most considerable product of the island is the salt. The greatest part of the people of Pago live by working in the salt-pits, and have a comfortable subsistence regularly paid by the government: it is therefore a very important circumstance for the inhabitants of the city to have a dry summer; and hence the ignorant vulgar look upon rain as a mischief brought upon the country by the force of witchcraft. In consequence of this idea, they elect a friar to exorcise the meteors, and keep the rain off the island. If, notwithstanding the poor friar's endeavours, the summer happens to be rainy, he loses his reputation and his bread; but if two or three dry seasons follow successively, he meets with great reverence and advantage. Part of the salt-works belongs to the government, and the rest to private proprietors; they are meliorated every year; and for that end the public lends money to those proprietors who want it, and who without that assistance could not make the requisite improvements.

"Many vestiges of ancient habitations still remain on the island of Pago, as well as of walled places, which either have been destroyed by the incursions of enemies or by time. Historians say, that the island was often abandoned by its inhabitants; and indeed it is rather to be wondered at how men ever could resolve to settle in so wretched a country. The small number of inhabitants, after so many years of peace and tranquillity under the Venetian government, evidently proves how little the island is really habitable. The town of Pago was built by the Venetians about 300 years ago; and contains upwards of 2000 inhabitants, and all the rest of the island scarcely 900. The difficulty of access to the city of Pago, and the ill accommodation

4 E

(A) Its figure is indeed remarkably irregular, its breadth being in no proportion to its length; for one of the extremities, called *Punta di Loni*, is above ten miles long, and less than one broad. Almost all the circumference is dismal, without trees or any kind of visible plants or grass, steep, craggy, and uninhabited. On entering the lake through the channel that communicates with the sea, nothing is to be seen either on the right or left but bare hanging rocks, so disfigured on the outside by the violent percussion of the waves, that the stratification is hardly distinguishable. In general, the stone of the island is of the same kind as the Istrian, or *breccia*; and, besides, there are large strata of blue and yellowish sand-stone. The channel, or inward bay of Pago, is not a harbour; on the contrary, it is a very dangerous station, and even inaccessible in winter, when the boreal wind blows with such fury, that the inhabitants of the town dare not stir out of their houses, and much less the few that are scattered over the country. The sky appears always cloudy in that season, by the thick mist that rises from the repercussion of the waves on that long chain of rough and hollow rocks.

Pago,
Pagod.

commodation that strangers meet with, make it very little frequented. Hence the inhabitants are as wild and unpolished as if they lay at the greatest distance from the sea and the commerce of polite people. The gentry, who pretend to show their manners different from those of the vulgar, are truly grotesque figures, both in their dress, behaviour, and insolent pretensions. The ignorance of their clergy is incredible; a priest of the greatest consequence there, and who was thought a man of learning, did not know how Pago was called in Latin. There are two convents of friars in Pago and one of nuns; and several churches, all in very bad order, and ill served. At Terra Vecchia also there is a convent of Franciscan monks; a race of men who, under various names and disguises, infest every place where credulous ignorance can be persuaded to maintain the idle and superstitious. One superstitious custom, amongst a variety of others, exists among their women, and particularly among those who have been married but a short time, if their husband happens to die, they tear their hair out in good earnest, and scatter it on the coffin; and this ceremony is so much consecrated by custom, that no woman, even though she had notoriously hated her husband, would fail in performing it."

PAGOD, or PAGODA, a name given by the East Indians to the temples where they worship their gods. We shall not in this place enter into a full detail of the several pagodas of different nations, and their peculiar circumstances. These matters seem to come in more properly under the *religion*, or, as others will call it, the *superstition*, of the people to whom they belong. We shall therefore content ourselves in the present article with an account of a paper in the *Asiatic Researches*, concerning the sculptures, &c. at Mavalipuram, a few miles north of Sadras, and known to seamen by the name of the *seven pagodas*.

The monuments which Mr Chambers (who communicated the paper) describes, appear, he says, to be the ruins of some great city decayed many centuries ago. "They are situated close to the sea, between Covelong and Sadras, somewhat remote from the high road that leads to the different European settlements. And when visited in 1776, there was still a native village adjoining to them which retained the ancient name, and in which a number of *bramins* resided that seemed perfectly well acquainted with the subjects of most of the sculptures to be seen there.—The rock, or rather hill of stone, on which great part of these works are executed, is one of the principal marks for mariners as they approach the coast, and to them the place is known by the name of the *Seven Pagodas*, possibly because the summits of the rock have presented them with that idea as they passed: but it must be confessed, that no aspect which the hill assumes as viewed on the shore, seems at all to authorise this notion; and there are circumstances, which will be mentioned in the sequel, that would lead one to suspect, that this name has arisen from some such number of pagodas that formerly stood here, and in time have been buried in the waves." The rock here mentioned, as it rises abrupt-

ly out of a level plain of great extent, naturally engrosses the attention of the eye. It consists chiefly of a single stone; and in its shape (which is singular and romantic), in a distant view, it has the appearance of an antique and lofty edifice. Works of imagery and sculpture crowd thicker upon the eye on a nearer approach, and at first sight at least favours the idea of a petrified town, which, through the credulity of travellers*, has been believed to exist in various parts of the world. "Proceeding on by the foot of the hill on the side facing the sea, there is a pagoda rising out of the ground of one solid stone, about 16 or 18 feet high, which seems to have been cut upon the spot out of a detached rock that has been found of a proper size for that purpose. The top is arched, and the style of architecture according to which it is formed, different from any now used in those parts." Beyond this a numerous group of human figures in bas-relief, considerably larger than life, attract attention. They represent considerable persons, and their exploits, many of which are now very indistinct thro' the injuries of time, assisted by the corroding nature of the sea air; others, while protected from that element, are as fresh as when recently finished.

The hill, which is at first of easy ascent, "is in other parts rendered more so, by very excellent steps cut out in several places, where the communication would be difficult or impracticable without them. A winding stair of this sort leads to a kind of temple cut out of the solid rock, with some figures of idols in high relief upon its walls, very well finished, and perfectly fresh, as it faces the west, and is therefore sheltered from the sea air." This temple our author conjectures to have been a place of worship appertaining to a palace; some remains of which still exist, and to which there is a passage from the temple by another flight of steps. This conjecture (for it is brought forward as merely such) is in some measure favoured by several ruins still remaining, and by the tradition of the bramins who inhabit the place. This finishes the objects "on that part of the upper surface of the hill, the ascent to which is on the north; but on descending from thence, you are led round the hill to the opposite side, in which there are steps cut from the bottom to a place near the summit, where is an excavation that seems to have been intended for a place of worship, and contains various sculptures of Hindoo deities. The most remarkable of these is a gigantic figure of *Vishnou* (A), asleep on a kind of bed, with a huge snake wound about in many coils by way of pillow for his head; and these figures, according to the manner of this place, are all of one piece hewn from the body of the rock." These works, however, although they are unquestionably stupendous, are, in our author's opinion, surpassed by others about a mile and a half to the southward of the hill. "They consist of two pagodas of about 30 feet long by 20 feet wide, and about as many in height, cut out of the solid rock, and each consisting originally of one single stone. Near these also stand an elephant full as big as life, and

Pagod.

(A) See a figure of *Vishnou* in the Plate of Indian gods, with its description, under the article POLYTHEISM.

Pagod.

and a lion much larger than the natural size, but very well executed, each hewn also out of one stone. None of the pieces that have fallen off in cutting these extraordinary sculptures are now to be found near or anywhere in the neighbourhood of them, so that there is no means of ascertaining the degree of labour and time that has been spent upon them, nor the size of the rock or rocks from which they have been hewn; a circumstance which renders their appearance the more striking and singular. And though their situation is very near the sea-beach, they have not suffered at all by the corrosive air of that element, which has provided them with a defence against itself, by throwing up before them a high bank that completely shelters them. There is also great symmetry in their form, though that of the pagodas is different from the style of architecture according to which idol temples are now built in that country. The latter resembles the Egyptian; for the towers are always pyramidal, and the gates and roofs flat and without arches; but these sculptures approach nearer to the Gothic taste, being surmounted by arched roofs or domes that are not semicircular, but composed of two segments of circles meeting in a point at top." Our author observes, that the lion in this group, as well as one on a stone couch in what he took to be a royal palace, are perfectly just representations of the true lion, and the natives there give them the name which is always understood to mean a lion in the Hindoo language, to wit, *sing*; but the figure which they have made to represent that animal in their idol temples for centuries past, though it bears the same appellation, is a distorted monster totally unlike the original; inasmuch that it has from hence been supposed, that the lion was not anciently known in this country, and that *sing* was a name given to a monster that existed only in Hindoo romance. But it is plain that that animal was well known to the authors of these works, who in manners as well as arts seem to have differed much from the modern Hindoos.

"There are two circumstances attending these monuments which cannot but excite great curiosity, and on which future inquiries may possibly throw some light. One is, that on one of the pagodas last mentioned, there is an inscription of a single line, in a character at present unknown to the Hindoos. It resembles neither the Deyva-nâgre, nor any of the various characters connected with or derived from it, which have come to the writer's knowledge from any part of Hindostan. Nor did it, at the time he viewed it, appear to correspond with any character, Asiatic or European, that is commonly known. He had not then, however, seen the alphabet of the Balic, the learned language of the Siamese, a sight of which has since raised in his mind a suspicion that there is a near affinity between them, if the character be not identically the same. But as these conjectures, after such a lapse of time, are somewhat vague, and the subject of them is perhaps yet within the reach of our researches, it is to be hoped that some method may be fallen upon of procuring an exact copy of this inscription.

"The other circumstance is, that though the outward form of the pagodas is complete, the ultimate design of them has manifestly not been accomplished, but seems to have been defeated by some extraordi-

nary convulsion of nature. For the western side of the most northerly one is excavated to the depth of four or five feet, and a row of pillars left on the outside to support the roof; but here the work has been stopped, and an uniform rent of about four inches breadth has been made throughout the solid rock, and appears to extend to its foundations, which are probably at a prodigious depth below the surface of the ground. That this rent has happened since the work began, or while it was carrying on, cannot be doubted; for the marks of the mason's tools are perfectly visible in the excavated part on both sides of the rent, in such a manner as to show plainly that they have been divided by it. Nor is it reasonable to suppose, that such a work would ever have been designed or begun upon a rock that had previously been rent in two. Nothing less than an earthquake, and that a violent one, could apparently have produced such a fissure in the solid rock; and that this has been the case in point of fact, may be gathered from other circumstances, which it is necessary to mention in an account of this curious place. The great rock above described is at some small distance from the sea, perhaps 50 or 100 yards, and in that space the Hindoo village before mentioned stood in 1776. But close to the sea are the remains of a pagoda built of brick, and dedicated to Sib, the greatest part of which has evidently been swallowed up by that element; for the door of the innermost apartment, in which the idol is placed, and before which there are always two or three spacious courts surrounded with walls, is now washed by the waves, and the pillar used to discover the meridian at the time of founding the pagoda is seen standing at some distance in the sea. In the neighbourhood of this building there are some detached rocks, washed also by the waves, on which there appear sculptures, though now much worn and defaced. And the natives of the place declared to the writer of this account, that the more aged people among them remembered to have seen the tops of several pagodas far out in the sea, which being covered with copper (probably gilt) were particularly visible at sun-rise, as their shining surface used then to reflect the sun's rays, but that now that effect was no longer produced, as the copper had since become incrusted with mould and verdegreafe."

From these circumstances our author conjectures, and we think reasonably, that the magnificent city of which these appear to be part of the ruins, has been destroyed partly by an earthquake by which the rock was rent, and partly by a sudden inundation of the sea occasioned by this commotion of the earth. The bramins give an account of this matter peculiar to themselves, filled with extravagance, fable, and folly; from which, however, with the assistance of ancient monuments, coins, and inscriptions, some probable conjectures at least, if not important discoveries, may, it is hoped, be made on these subjects, which are far from being uninteresting to us either as men, philosophers, or Christians. Our author thinks, therefore, that the inscription on the pagoda mentioned above is an object which merits considerable attention; and he defends, by very reputable authorities, the conjecture which places it among the languages of Siam; but which it is unnecessary for us either to abridge or to transcribe. In the course of this

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Pagod. inquiry, our author remarks a very near resemblance between *Sommonacodon*, the idol of the *Siamese*, and the great idol Buddou, held sacred by the *Chingelays*; and this resemblance extends also to their priests. But from the detail of circumstances which our author brings forward, and to which we refer, he thinks this a system of religion different from that of the *Veds*, and some of them totally inconsistent with the principles and practice of the *bramins*; none of whom, as far as we can collect from Mr Knox†, exist among the *Chingelays*, whose religion is totally different from that of the present *Hindoos*. The only part in which there seems to be any agreement is in the worship of the *Debtahs*, which has probably crept in among them from their *Tamulian* neighbours, but that is carried on in a manner very different from the *braminical* system, and appears to be held by the nation at large in very great contempt, if not abhorrence. Knox's account of it is this: "Their temples (*i. e.* those of the *Debtahs*) are called *covels*," which is the *Tamulic* word for pagoda. He then goes on to say, "a man piously disposed builds a small house at his own charge, which is the temple, and himself becomes priest thereof. This house is seldom called *God's House*, but most usually *Jacco the Devil's*." But of the prevailing religion he speaks in very different terms, and describes it as carried on with much parade and splendour, and attended with marks of great antiquity. "The pagodas or temples of their gods (says he) are so many, that I cannot number them. Many of them are of rare and exquisite work built of hewn stone, engraven with images and figures, but by whom and when I could not attain to know, the inhabitants themselves being ignorant therein. But sure I am they were built by far more ingenious artificers than the *Chingelays* that now are on the land. For the *Portuguese* in their invasions have defaced some of them, which there is none found that hath skill enough to repair to this day." In another place, he says, "here are some ancient writings engraven upon rocks which puzzle all that see them. There are divers great rocks in divers parts in *Cande Uda*, and in the northern parts. These rocks are cut deep with great letters for the space of some yards, so deep that they may last to the world's end. Nobody can read them, or make any thing of them. I have asked *Malabars* and *Gentoos*, as well as *Chingelays* and *Moors*, but none of them understood them. There is an ancient temple, *Goddiladenni* in *Yattanour*, stands by a place where there are of these letters." From all which the antiquity of the nation and their religion is sufficiently evident, and from other passages it is plain, that the worship of Buddou, in particular, has been from remote times a very eminent part of their religion; for the same author, speaking of the tree at *Anurodgburro*, in the northern part of the island, which is sacred to Buddou, says, "the due performance of this worship they reckon not a little meritorious: insomuch that, as they report, 90 kings have reigned there successively, where, by the ruins that still remain, it appears they spared not for pains and labour, to build temples and high monuments to the honour of this god, as if they had been born to hew rocks and great stones, and lay them up in heaps. These kings are now happy spirit

† *Hist. of Ceylon.*

having merited it by these labours." And again he says, "For this god, above all other, they seem to have an high respect and devotion," &c.

Such is the nature of Mr Chambers's communication, as far as it respects pagodas; a subject to which the *Asiatic Society* will doubtless again direct their attention; and from the penetration and assiduity of its members we have much to expect. Other parts of this paper shall be brought forward under other articles, to which we refer. Few researches are of more service to true religion, than those which give us a correct view of the false and superstitious modes of worship practised by men who have had no light but reason, or weak and corrupted traditions. They are useful likewise to the philosopher, as they always tend to give us a minuter view of the real nature of man as he is in himself, and show with sufficient strength the imbecillity of the human intellect without some supernatural aid. The external pomp of all Pagan religions seems to have been their essence; a circumstance which alone shows the necessity of that, the intention of which is to reform the heart. See *SIAM*, *SOMMONACODON*, *TEMPLE*, &c.

PAGOD, or *Pagoda*, is also the name of a gold and silver coin, current in several parts of the East Indies.

PAIN, an uneasy sensation, arising from a sudden and violent solution of continuity, or other accident in the nerves, membranes, vessels, muscles, &c. of the body. Pain, according to some, consists in a motion of the organs of sense; and, according to others, it is an emotion of the soul occasioned by those organs.

As the brain is the seat of sensation, so it is of pain. Boerhaave, and most other authors on this subject, ascribe a stretching of the nerves as the only immediate cause of pain: but as the nerves do not appear to consist of fibres, this cause of pain does not seem to be well-founded; nor indeed will it be easy to treat this subject clearly, but in proportion as the means of sensation are understood.

Many kinds of pain are met with in authors: such as, A gravitative pain; in which there is a sense of weight on the part affected, which is always some fleshy one, as the liver, &c. A pulsative pain; which, Galen says, always succeeds some remarkable inflammation in the containing parts, and is observed in abscesses while suppurating. A tensive pain, which is also called a *distending* pain; it is excited by the distension of some nervous, muscular, or membranous part, either from some humour, or from flatulence. An acute pain is, when great pain is attended with quick and lively sensations: A dull pain is, when a kind of numbness is as much complained of as the pain is.

The mediate and more remote causes of pain are generally obvious; and when so, the cure will consist for the most part in removing them: for though in many instances the chief complaint is very distant from the seat of these causes, yet their removal is the proper method of relief. See *MEDICINE*, *passim*.

Perhaps all pains may be included, with irritation, in those that have spasm or inflammation for their source. When pain is owing to inflammation, the pulse is quicker than in a natural state; it is also generally full, hard, and tense; the pain is equal, throbbing, and unremitting. If a spasm is the cause, the pulse is rarely affected; at intervals the pain abates, and then returns with

Pagod, Pain.

Pain. with some degree of aggravation; gentle motion sometimes abates, or even cures, in some instances: but in inflammatory cases no such effects are ever experienced. See Dr Lobb's *Treatise on Painful Distempers*.

The pain so frequently attendant on women in child-bed, called *after-pains* (from their happening only after being delivered of a child), are often occasioned by scooping to fetch away coagulated blood, which is a needless endeavour. When no improper treatment in delivering the secundines can be suspected, the irritability of the uterus alone is to be considered as the cause. Care should be taken not to confound these after-pains with, or mistake the pains attending puerperal fevers for, the colic. After-pains come by fits, and soon go off; but return at different intervals, which are longer each day, and after two or three days are usually at an end, though sometimes they continue seven or eight: notwithstanding these pains, the lochia flow

properly, and generally more abundantly after the cessation of each fit; this does not happen in colicky complaints, nor is the belly so free from tumefaction when the puerperal fever is attendant.

As these pains are of the spasmodic kind, anodynes and gentle opiates, with frequent draughts of warm caudle, camomile tea, &c. are all that are required in order to their relief.

Among the various causes of pain, a singular one is related in the third vol. of the *Lond. Med. Obs. and Inq.* p. 241, &c. Some persons who had taken cold during their being salivated, were afflicted with pains which resisted all the usual methods of relief. At length the author of the narrative referred to suggested the cause; and by exciting a fresh salivation the pains abated: the spitting was kept up a little while, and permitted to abate with some caution; and thus the cures were completed.

Pain.

P A I N T I N G.

PAINTING is the art of representing to the eyes, by means of figures and colours, every object in nature that is discernible by the sight; and of sometimes expressing, according to the principles of physiognomy, and by the attitudes of the body, the various emotions of the mind. A smooth surface, by means of lines and colours, represents objects in a state of projection; and may represent them in the most pleasant dress, and in a manner most capable of enchanting the senses. Still farther, the objects which delight us by their animation and lively colours, speak to the soul, by giving us the image of what we hold most dear, or by indicating an action which inspires us with a taste for innocent pleasures, with courage, and with elevated sentiments. Such is the definition, and such are the effects of painting.

By an admirable effort of human genius, painting offers to our eyes every thing which is most valuable in the universe. Its empire extends over every age and country. It presents to us the heroic deeds of ancient times as well as the facts in which we are more conversant, and distant objects as well as those which we daily see. In this respect it may be considered as a supplement to nature, which gives us only a view of present objects.

The art of painting is extremely difficult in the execution; and its merit can only be appreciated by those who profess the art.

The painter who invents, composes, and colours conceptions which are only agreeable, and which speak merely to the eye of the spectator, may be reckoned to possess the first merit in the style of embellishment and decoration.

The painter who is distinguished for noble and profound conceptions; who, by means of a perfect delineation, and colours more capable of fixing the attention than dazzling the eye, conveys to the spectators the sentiments with which he himself was inspired; who animates them with his genius, and makes a lasting impression on their minds; this artist is a poet, and worthy to share even in the glories of Homer.

It is in forming this great idea of his art that the painter becomes himself great.

But if he seek only to please or astonish by the illusion of colours, he must rest contented with the secondary merit of flattering the eye with the variety and opposition of tints, or of making an industrious assemblage of a great multiplicity of objects. It is in painting as it is in poetry. The man who clothes trivial or common ideas in verse, exercises the profession of twisting syllables into a certain measure. The poet who clothes in good verse ideas and sentiments, that are merely agreeable, professes an agreeable art. But he who, by the magic of verse, of ideas, of imagery, or of colours, adds sublimity to the sublime objects of nature, is a great poet and a great painter. He deserves the crown which the nations have decreed to Homer, Virgil, Milton, Raphael, and the statuary who modelled the ancient Apollo. It is reasonable to place in the same class those who have expressed the same ideas, whether it be in verse or in colours, on brass or on marble. The painter and statuary, who excel in their professions, deserve all the respect due to genius: they are of the number of those men whom nature, sparing of her best gifts, grants but occasionally to the inhabitants of the earth. If they are sublime, they elevate the human race; if they are agreeable only, they excite those sweet sensations necessary to our happiness.

In laying before our readers a succinct account of this noble art, we shall, first, give the history of painting, including its rise, progress, and decline, in ancient and modern times; an account of the schools, and of the different merits of painters; and a comparison between the ancient and modern painting. Secondly, we shall lay down the principles of the art, and the order in which the artist conducts his studies. Thirdly, we shall enumerate the different classes of painting, with observations on each. And, Fourthly, we shall treat of oeconomical or house-painting.

HISTORY.

HISTORY.

SECT. I. *Rise, Progress, and Decline of Painting in Ancient and Modern Times.*

It is to be imagined that men must naturally, and very early, have conceived an idea of the first principles of the art of painting; the shadow of each plant and animal, and of every object in nature, must have afforded them the means of conceiving, and pointed out the possibility of imitating, the figures of all bodies. Thus the savage nations, an emblem of what men were in the infancy of society, possess the first rudiments of this art, even before those which are useful and almost necessary to existence; their naked bodies are covered with punctures of various forms, into which they infuse indelible colours. The next demand for this art, is to preserve the memory of warlike exploits. It is more natural to form some representation of an action, than to give an account of it by means of arbitrary characters. Hence the picture-writing of the Mexicans, and the more artful hieroglyphics of Egypt.

Painting consisted of simple outlines long before the expression of relief or the application of colour. It was simply drawing; and the master-pieces of painting in that rude period were not superior to the sports of children. Although occupied about a single point, it was not brought to perfection; for constant experience instructs us that men never excel in the inferior parts of an art till they are capable of carrying the whole to perfection.

After employing for a long time those simple outlines, the next step in the art of painting was to make the imitation more complete, by applying colours: this was first accomplished by covering the different parts of the figure with different colours in the same way that we colour maps; and several nations, as the Egyptians, the Chinese, and the different nations of India, have never painted in a better manner. Other nations, more ingenious and more attentive to the arts, observing that the objects of nature have relief, have invented what is called *claro-obscuro*. The Greeks, the most ingenious, penetrating, and delicate of all, invented this part antecedent to colours; than which there cannot be a greater proof of their exquisite taste, as the glare of colours without judgment excites more admiration in the minds of the vulgar and ignorant, than the camaieu or drawings of one colour executed by the most skilful artist.

These general observations concerning the gradual improvement of this art, will be best illustrated by a more particular attention to the ancient nations in which it flourished.

Plato, who lived 400 years before the Christian era, informs us that painting had been practised in Egypt for ten thousand years; that some of the productions of that high antiquity were in existence; and that they bore an exact resemblance to those which the Egyptians executed in his time. Without regarding the period of ten thousand years mentioned by Plato, it is reasonable to consider it as an indeterminate period, which carries us back to very remote antiquity.

The figures either in the painting or sculpture of Egypt were extremely stiff; the legs were drawn together, and their arms were pasted to their sides. It appears that their only model was their mummies, and that their skill in anatomy was derived from embalming them. They were extremely incorrect in every part of the head; they placed the ears much higher than the nose. Besides, they gave the face the form of a circle instead of an oval; the chin was short and rounded; the cheeks excessively so; and they turned upwards the corners of the mouth and eyes. Many of these faults may be ascribed to the formation of the human face in Egypt; but the placing of the ears could only be founded in caprice or ignorance.

The exactness of the Egyptian proportion is much celebrated; but although we grant that they observed the proper length of the different parts of the human body, they were still defective artists, since they did not observe the breadth, and were moreover ignorant altogether of the shape and size of the muscles. Works converted to religious purposes chiefly occupied the Egyptian painters. They had figures for imitation from which they would not depart, and those figures were monstrous; the bodies of animals with the heads of men; the bodies of men with the heads of animals: or, if the figure was more agreeable to nature in its parts, yet it was so deformed and imaginary, as to have nothing similar to it as a whole in the creation of God.

The monuments of Egyptian painting with which we are best acquainted (says Winklemann) are the chests of mummies. These works have resisted the injuries of time, and are still submitted to the examination of the curious. The white, made of white lead, is spread over the ground of the piece; the outlines of the figure are traced with black strokes, and the colours are four in number; namely, blue, red, yellow, and green, laid on without any mixture or shading. The red and blue prevail most; and those colours seem to have been prepared in the coarsest manner. The light is formed by leaving those parts of the ground where it is necessary, covered with the white lead, as it is formed by the white paper in some of our drawings. This description is sufficient to convince us that the whole art of painting in Egypt consisted in colouring; but every person knows, that without tints and the mixture of colours painting can never arrive at great perfection.

In Upper Egypt there seems to have existed a kind of colossal painting, which has never been examined except by travellers who were no great critics in the art. Winklemann had some reason to express a desire that those remains of antiquity, with regard to the manner of working, the style, and the character, had been accurately explored. Walls of 24 feet in height, and pillars of 32 feet in circumference, are wholly covered with those colossal figures. According to Norden they are coloured in the same manner with the mummies: the colours are applied to a ground prepared in manner of fresco; and they have retained their freshness for many thousand years. Winklemann adds, that all the efforts of human skill and industry could
make

Rise, Progress, and Decline.

make as little impression on them as the injuries of time. His enthusiasm for antiquity has perhaps led him into this extravagant exaggeration.

It appears that the great employment of the Egyptian painters was on earthen vessels, on drinking cups, in ornamenting barges, and in covering with figures the chests of mummies. They painted also on cloth; but painting, as an industrious occupation, supposes a workman, not an artist: the decoration of temples, house-painting, and that of the figures relative to religion, are to be considered only in this point of view. The workmen in Russia who paint our Saviour holding the globe in one hand, and blessing the people with the other, are not members of the imperial academy of fine arts.

Pliny informs us that the Egyptian artists painted also the precious metals; that is to say, they varnished or enamelled them. It is doubtful what this art was, but most probably it consisted in covering gold or silver with a single colour.

The Egyptians are supposed to have continued this coarse style till the reign of the Ptolemies.

²
In Persia.

The Persians were so far from excelling in the arts, that the paintings of Egypt were highly esteemed among them after they had conquered that country.

The carpets of Persia were of great value in Greece, even in the time of Alexander the Great, and these were adorned with various figures; but this is no proof that they were well executed, any more than a demand for several of the Chinese productions is at present a proof of the taste of that people in the arts. It was the fabrication of the silk, and not the truth of the representation, which made the Greeks admire the carpets of Persia.

The Persians, as well as the Arabians, had some knowledge of Mosaic work. This is only valuable when it copies, in a manner that cannot be destroyed, the works of a great master; but if the Persians had no good pictures to copy into Mosaic, it was of no consequence to be able to arrange, in a solid manner, pieces of flint one beside another.

There is only one Persian painter whose name has descended to posterity; and he is preserved, not because he was a painter, but because he accommodated the ancient doctrine of the two principles to the Christian religion. Besides, it is doubted whether *Manes* was a Persian or a Greek, and it is still less known whether he was a painter. He is praised in Asia for drawing straight lines without a ruler.

The modern Persians have made no kind of progress in the arts. The emperor Schah-abbas, wishing from caprice to be instructed in drawing, was obliged to have recourse to a Dutch painter who happened to be in his dominions.

³
In India and Tibet.

The modern Persians paint on cloth, and the artists in India are their rivals in this branch of industry; but their paintings are purely capricious. They represent plants and flowers which have no existence in nature; and their only merit consists in the brightness and the strength of their colours.

Besides this, the art in India, as it was in the most remote antiquity, is confined to monstrous figures connected with their religion, animals not to be found in the world, and idols with a multitude of arms and

heads, which have neither exactness in their forms nor proportions. See POLYTHEISM.

Rise, Progress, and Decline.

The paintings of Thibet discover great patience in the artist, and are remarkable for the fineness of their strokes. Their painters might dispute with Apelles and Protogenes for extreme tenuity of pencil; but it is in this alone, without any regard to the art, in which their merit consists.

Some of the idols in Thibet are executed in a certain style of relievo; but those productions are not only imperfect, they are also so destitute of beauty as to forbid every hope of excellence in the art. The same thing may be observed with regard to many of the eastern nations; they seem to have that want of style which would for ever condemn them to mediocrity, even if they should happen to arrive at it.

An obscure Italian painter, named *Giovani Ghirardini*, who travelled into China, whose judgment is more to be depended on in an art which he practised than that of other travellers, declares that the Chinese have not the least idea of the fine arts; and this opinion is confirmed by every thing which we know of that people.

⁴
In China.

The Chinese seem not to have the smallest conception of perspective. Their landscapes have no plan, no variety in the appearance of the clouds, and no diminishing of the objects in proportion to their distance.

The great object of their painting seems to consist in making their figures as unlike nature as possible: it is a serious caricature of the human figure.

To make the art flourish, it is necessary that the artist be esteemed and rewarded. In China, there is no artist so poorly paid as the painter.

The ignorant admire the brightness and purity of their colours; but simple colours appear always bright and pure: The difficulty of the art consists in melting them into one another in such a manner that the mixture shall not be perceived. It must at the same time be confessed, that their natural colours are more brilliant than ours; but if there be any merit in this, it is to be ascribed to their climate, not to their ability.

A Jesuit missionary, who in his youth had been a grinder of colours, was raised to the greatest eminence as a painter in the Imperial court of China, and Raphael himself was never so much respected. The Chinese battles sent from that country to Paris to be engraved, are the works of the Jesuits; and except they were done by the Chinese themselves, it is impossible to conceive that they could be worse executed.

The Chinese, like other eastern nations, have a few simple strokes which they repeat in all their variety of figures. In the figures on the earthen ware, they discover no knowledge of forms, no expression of the most conspicuous muscles, and no idea of proportion. And in all the paintings of China, anatomy seems to bear no relation to the art. Some heads done by a Chinese painter have a sort of resemblance to nature, but they are in a low and vicious taste: The fulness of the drapery conceals the parts in such a manner that they do not seem to exist under it. Sculpture in China is in a state of no great perfection, but at the same time it is better executed than their paintings.

The

The ancient inhabitants of Etruria, now called *Tuscany*, were the first who connected the arts with the study of nature. In some of their monuments which still remain, there is to be observed a first style, which shows the art in its infancy; and a second, which, like the works of the Florentine artists, shows more of greatness and exaggeration in the character than precision or beauty.

Pliny says that painting was carried to great perfection in Italy before the foundation of Rome; perhaps he means in comparison with the infancy of the art in Greece at that period; but it appears that even in his time the painters of Etruria were held in great reputation.

The only Etrurian paintings which remain, have been found in the tombs of the Tarquins. They consist of long painted frizes, and pilasters adorned with huge figures, which occupied the whole space from the base to the cornice. These paintings are executed on a ground of thick mortar, and many of them are in a state of high preservation.

Winklemann is of opinion that the Greek colonies established at Naples and Nola, had at a very early period cultivated the imitative arts, and taught them to the Campanians established in the middle of the country. This learned antiquarian considers as works purely Campanian, certain medals of Capua and Teanum, cities of Campania into which the Greek colonies never penetrated. The head of a young Hercules, and the head of a Jupiter, according to Winklemann, are executed in the finest manner. It is still a question, however, in the learned world, whether these medals owe their existence to Carthage or to Campania.

"But there have been discovered (adds Winklemann) a great number of Campanian vases covered with painting. The design of the greatest part of these vases (says he) is such, that the figures might occupy a distinguished place in a work of Raphael. Those vases, when we consider that this kind of work admits of no correction, and that the stroke which forms the outline must remain as it is originally traced, are wonderful proofs of the perfection of the art among the ancients." Winklemann had an opportunity of examining a very fine Campanian vase, on which was painted a burlesque representation of the loves of Jupiter and Alcmena. But as this must have been derived from some fragment of a Grecian comedy, the Count de Caylus is persuaded that the Campanian vases are of Greek origin.

Although the history of Greek painting be more fully known than that of the same art among the barbarous nations, it is nevertheless involved in much obscurity. Pliny is almost the only author who has preserved the materials of its history; and he complains, that on this occasion the Greek writers have not discovered their usual exactness. They place, says he, the first painter of whom they speak in the 90th Olympiad, 420 years before the Christian era. It is certain that painting in dry colours existed at the time of the siege of Troy, or at least when Homer wrote the account of it. The buckler of Achilles is a sufficient proof that the Greeks were then acquainted with the basso-relievo, a kind of sculpture which bears a near affinity to painting.

In the *Iliad*, Helen is represented as working at a tapestry, whereon she figured the numerous combats of which she was the cause. When Andromache was informed of her husband's death, she was occupied in representing on tapestry flowers of various colours. From these facts, it is certain that painting was not confined to simple strokes, nor even to the camaieu; and hence it is reasonable to conclude, that what is called *lineary painting* was practised long before the time of Homer. Polygnote of Thasos, who lived about 420 years before the Christian era, was the first painter of any eminence in Greece. Pliny informs us that he was the first who clothed his female figures, who varied the colours of the different parts of their dress, or who opened their mouths in such a manner as to show their teeth. Aristotle, who flourished in a subsequent period, allows this painter to have excelled in expression. But the art of painting may be still considered in its infancy in Greece, till about 400 years before the Christian era, when Zeuxis and Parrhasius flourished. In the contest between these eminent painters, Zeuxis declared himself to be overcome, because in a cluster of grapes which he painted he had deceived the birds; whereas Parrhasius in a curtain which he executed deceived his rival. The principal works of Zeuxis are his Penelope, in which, according to Pliny, he appears to have expressed the manners of that princess; a Jupiter surrounded by the gods; a Hercules strangling the serpents in the presence of Amphitryon and Alcmena; an Helen and a Marsyas bound. From this enumeration of these works, and from the fame which they have acquired, it is evident that the difficult parts of the art, and those which in the execution render it estimable, were now begun to be studied. By Appelles, Protogenes, and Euphranor, it was carried to the greatest height of perfection. Grace, and symmetry, and proportion, and illusion, were now added by the greatest masters to the noblest objects of nature.

We have already seen, that before the foundation of Rome the arts were cultivated in Etruria. They were also early introduced into Latium; but whether that country employed its own artists or those of Etruria, remains altogether uncertain. One need not be astonished, that at a period when the arts were in their infancy in Greece, they were raising statues to their kings in Rome; but at that period all their artists were Etrurians or Latins; and when they conquered Italy, they made all the nations of it as barbarous as they were themselves.

In the year 259 from the building of the city of Rome, and 494 years before the Christian era, Appius Claudius consecrated a number of shields in the temple of Bellona, which contained in basso relievo the portraits of his family. This example was followed; and in process of time it was common among the Romans to place those images in private houses. The execution in basso-relievo is a proof that they had an idea of painting, at least with one colour. As long as the Romans employed artists of other nations, they had little desire to cultivate the arts; but towards the year of Rome 450, and 303 years before Christ, one of the Fabii thought it no discredit to a noble family to employ himself in painting. He painted the temple of Safety; and his works remain-

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ed till that temple was destroyed by fire, in the reign of Claudius. It is worthy of remark, that the same man was the first painter and the first historian in his country.

The example of Fabius, surnamed *Pictor* from his profession, did not excite his fellow citizens to imitation. A century and a half elapsed before the tragic poet Pacuvius, nephew of Ennius, painted the temple of Hercules in the *forum boarium*. The glory which he had acquired by his dramatic works shed some lustre on the art, which he condescended to exercise; but did not confer on it that respect which could recommend it to general practice. The paintings of Fabius were the works or rather the recreations of his youth; those of Pacuvius, the amusements of his old age: but painting is a difficult art, which requires the whole attention, and which can never be prosecuted with success, except those who love it are solely devoted to the performance.

It appears that there were no eminent painters at Rome till the time of the emperors; but as the national spirit was changed, the profession of the fine arts acquired more respectability. The Romans, during the time of the republic, were animated with the spirit of liberty and the desire for conquest. When these two passions were weakened, the love of the arts obtained among them. As a proof of this it is sufficient to say, that Nero himself gloried in being an artist. A Colossian picture of 120 feet was painted at Rome by the command of this emperor, which was afterward destroyed by lightning. The name of the painter is not recorded, and there are various opinions concerning the merit of the performance; but the thing chiefly worthy of observation is, that this is the only painting on cloth mentioned by ancient authors.

The paintings of the ancient artists were either moveable or on the ceilings or compartments of buildings. According to Pliny, the most eminent were those who painted moveable pictures. The latter were either on fir-wood, larch, boxwood, or canvas, as in the colossian picture mentioned above, and sometimes on marble. When they employed wood, they laid on in the first instance a white ground. Among the antiquities of the Herculaneum are four paintings on white marble.

Their immoveable paintings on walls were either in fresco or on the dry stucco in distemper. Indeed all the ancient paintings may be reduced to, *first*, fresco-painting; *secondly*, water-colour or distemper-painting on a dry ground; and, *thirdly*, encaustic painting.

The ancient fresco-paintings appear to have been always on a white stucco-ground, the colours inlaid very deep, and the drawing much more bold and free than any similar performance of modern art. The outlines of the ancient paintings on fresco were probably done at once, as appears from the depth of the incision and the boldness and freedom of the design, equal to the care and spirit of a pencilled outline.

In general the ancients painted on a dry ground, even in their buildings, as appears from the Herculanean antiquities, most of which are executed in this manner. At Rome and Naples, the first (deepest) coat is of true Puzzolana, of the same nature with the *terras* now used in mortar, required to keep out wet, about one finger thick; the next of ground

marble or alabaster, and sometimes of pure lime or stucco, in thickness about one third of the former. Upon this they appear to have laid a coat of black, and then another of red paint; on which last the subject itself was executed. Such seems to have been their method of painting on walls; but in their moveable pictures, and in the performance of their first artists, and where effect of shade and light were necessary, they doubtless used white.

The colours employed they seem to have mixed up with size, of which they preferred that made by boiling the ears and genitals of bulls. This appears to have made the colours so durable and adhesive, that the ancient paintings lately found bear washing with a soft cloth and water; and sometimes even diluted aquafortis is employed to clean their paintings on fresco. Pliny says that glue dissolved in vinegar and then dried, is not again soluble.

What the encaustic painting of the ancients was, has been much disputed. From the works of Vitruvius and Pliny, it appears evidently that it was of three kinds.

First, where a picture painted in the common way, was covered with a varnish of wax melted, diluted with a little oil, and laid on warm with a brush.

Secondly, where the colours themselves were mixed up with melted wax, and the mixture used while warm. And,

Thirdly, where a painting was executed on ivory by means of the *cestrum* or *viriculum*.

Some experiments on this last method by Mr Colebrook may be found in the Phil. Trans. vol. 51. and more particular directions in Muntz's Treatise on Encaustic Painting.

It appears from ancient writings of the best authority, that in the earliest and purest times of this art, the painters used few colours, perhaps not more than four. "The paintings of the ancients (says Dionysius Halicarnassensis) were simple and unvaried in their colouring, but correct in their drawing, and distinguished by their elegance. Those which succeeded, less correct in their drawing, were more finished, more varied in their light and shades, trusting their effect to the multitude of their colours." But no certain conclusion can be drawn, that the more early among the great painters of the ancients, such as Apollodorus, Zeuxis, Timanthes, &c. had no more colours than four to use, merely because they did not use them. On the contrary, it may be conjectured with some degree of probability, from their chasteness in design, and from the complaints Pliny makes of the gaudy taste of the Roman painters, that the Greeks in general were *designedly* chaste in their colouring, and not so merely from necessity, at least about the time of Zeuxis and Apelles; for the former could not have painted grapes so naturally as he is said to have done with four colours only: and the rebuke given by the latter to one of his scholars who had painted an Helen very guadily, is a confirmation of these observations. "Young man (says Apelles), not being able to make her beautiful, you have made her rich."

Of white colouring substances, the ancients had white lead variously prepared, a white from calcined egg-shells, and preparations from cretaceous and argillaceous earths. The moderns in addition have ma-

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gistry of bismuth, little used; and ought to have the calces of tin and zinc.

Of blacks, the ancients had preparations similar to lamp, ivory, blue, and Franckfort black; also to Indian ink and common writing ink; and they used, what we do not, the precipitate of the black dyers vats.

The ancients possessed a species of *vermilion* or fine cinnabar, a coarser cinnabar, red-lead, various earths burnt and unburnt, apparently similar to our red ochre; Venetian red, Indian red, Spanish brown, burnt terra de Sienna, and scarlet ochre; they had also a substance alike in colour and in name to our dragon's blood.

The yellow pigments of the ancients were generically the same with our orpiments, king's-yellow, Naples-yellow, &c. They did not possess turbeth-mineral, mineral-yellow, or gamboge; nor do they appear to have known of gall-stone as a pigment.

Of blue paints they had preparations from the lapis syanus and lapis armenus. Indigo they had, and perhaps bice and smelt; for they made blue glass, but whether from some ore of cobalt or of wolfram must be uncertain: they had not Prussian blue, verditer, nor litmus, which we have. We do not use the blue precipitate of the dyers vats, nor mountain blue, which they certainly employed.

Of green colours, they had verdegrise, terra vert, and malashite or mountain green. The latter is not in use among us. Sap green, green verditer, and Scheele's green, appear to have been unknown to them: like us, they procured as many tints as they pleased from blues and yellow vegetables.

We have no original purple in use: that from gold by means of tin, though very good when well prepared, is too dear perhaps, and unnecessary. Their purple was a tinged earth. Their orange or sandarac (red orpiment) we also possess. Hence there does not appear to have been any great want of pigments, or any very material difference between the colours they used and such as we generally employ. Perhaps the full effect of colouring may be obtained without the use of the exceeding brilliant pigments, depending chiefly on the proportion and opposition of tints.

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painted in
oil.

The ancients could not know any thing about the spirit varnishes, distillation being a modern invention; but they were undoubtedly acquainted with the use of the better oil varnishes, that is, with the use and effect of resinous gums dissolved in boiling inspissated oils.

One of the best preserved mummies in the British museum has an astonishing brightness of colours on the outside of the coffin. Thousands of years have not impaired them; they are as fresh as if they had been laid on yesterday.

The chalk ground, and the excellency of the colours, some of which imply a good deal of chemical and metallurgical knowledge, do not sufficiently account for their splendour and freshness: it must be owing to other circumstances; either to the mixture of shining colours, or to a hard glossy skin which visibly covers them all over.

From an accurate examination of one of those mummies belonging to the university of Cambridge, it appeared, that the varnish which covered the colours

could not be dissolved, or in the least affected by common water; and that it equally resisted the dissolving power of the strongest spirits: hence it is reasonable to conclude, that the coffins of the mummies were not covered with size, whites of eggs, simple gums, or any preparation of wax, but with a fine transparent oil varnish. It was discovered at the same time, that the colours themselves were not prepared or mixed with oil; for where the external glossy skin was damaged, broken, or rubbed off, even common water would wash the colours away, and affect the chalk ground under them.

Pliny has described the general and particular effects of the varnish of Apelles, under the name of *atrament*, so distinctly, that no body can mistake the thing or the mixture he is speaking of. He has mentioned the shining glossy skin of the varnish which excites the brightness of the colours, and preserves them against dust; he observed, that this skin was laid on so thin, that it could not be discerned at any distance: nor was he less accurate in reporting the particular effects of that mixture which Apelles made use of; it harmonized and lowered the tone of the brightest florid colours in an imperceptible manner, and the whole appeared as if it had been seen through isinglass. The chemists and connoisseurs are fully of opinion, that no liquid substance or mixture of any kind is fit to produce these effects besides the oil varnishes: and if there are not, Apelles and the Greeks were certainly acquainted with those varnishes; a fact which might be strongly urged in behalf of their knowledge of oil colours.

The black outlines of the figures on the most ancient Greek paintings yet extant, that is, on Etruscan vases, are so sharp, so thick, and drawn in so easy and masterly a manner, that one cannot help looking upon them as having been drawn in oil colours. Had they been in distemper or water colours on the red clay ground on which they are applied, they would have been imbibed and soaked into it. Our china and enamel painters prepare and apply their colours with spike or other liquid oils; and the Greek masters seem to have done the same, unless they should appear to have burnt their vases before they painted them, or to have used a mixture of dissolved wax or gum for giving a body to their colours, which might have answered the same end as oils. And this is the more probable, as there is some reason to believe that these vases went through two different fires, that of baking them, and that of smelting or burning in their colours.

The Greek and Roman paintings that have been preserved or discovered at Rome and Herculaneum do not countenance the supposition of oil colours; at least Turnbull and the academists at Naples, who have described the royal collection at Portici, Cochin, and many other authors who have seen and described them, do not hint any thing of that nature. On the other hand, Vitruvius, who has left us so many valuable notices of the ancient arts, acquaints us, that there was a kind of painting which absolutely required a mixture of oil: And Pliny, to the same purpose, expressly says, "Sun and moon shine are inimical and obnoxious to red lead. The remedy is to apply the red wax when hot and melted with some oil on the well-dried walls, which is to be done with brushes."

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From these observations, the evidence which the ancients have given us in behalf of themselves, and of their knowledge of oil painting, may be summed up in few words.

Their having been acquainted with the white chalk ground, which many modern masters have used for oil painting on boards, proves no more than that the ancients might have done the same.

The oil varnishes used by the Egyptians and by Apelles might have brought them to the discovery of oil painting; but as it appears both from mummies and from the works of Pliny, that their colours were not prepared and mixed with that varnish, and as it is plain rather that this varnish was externally laid over the finished pictures; no other conclusion can be drawn, except that they were within sight of the discovery, and that it is a matter of wonder that they should not have laid hold of it.

The outlines of the old Greek or Etruscan vases are merely fallacious appearances.

The old Greek and Roman paintings on walls and stones are either painted in distemper and fresco, or they have not been sufficiently examined.

The oil used in the coarser wax and wall paintings, proves at most that experiments had been tried with oils; but we have no direct proofs of oil painting having been understood or used by the Egyptians, Greeks, or Romans; and that, however great their skill or ingenuity, they might very well have been within sight and reach of the discovery, and nevertheless have missed it.

The art of painting was revived in Europe about the end of the 13th or beginning of the 14th century. The human mind, however, plunged in profound ignorance, was destitute of every principle of sound philosophy which might enable it to determine on the objects of the arts; and of consequence the painters contented themselves with works adapted to the general taste, without beauty and without proportion. In Italy, where the first attempts were made, they were employed in representing the mysteries of the *passion*, and subjects of a similar nature, on the walls of chapels and churches. Their labours were directed to a vast number of figures, rather than to the beauty and perfection of each; and the art in more modern times has always preserved somewhat of this absurd fault which it contracted at that early period. The artist in our times is not, like those in Greece, at liberty to devote his talents only to men of knowledge and discernment; he is constrained to please those who are rich, and very frequently those who are ignorant. Instead of proposing to himself the perfection of the art as the great object of his pursuit, he must rest his success and character on the facility of his operation and the abundance of his works.

Painting did not long continue in the imperfect condition in which it was left by those who first cultivated it among the moderns. It was natural that their successors should endeavour to surpass them by joining some degree of theory to the barbarous practice they had adopted. The first thing which they discovered, or rather which they revived after the manner of the ancients, was perspective. This made the artists capable of expressing what is called *foreshortening*, and of giving more effect and more truth to their works.

Dominique Ghirlandaios, a Florentine, was the first who enriched the style of his composition by grouping his figures, and who gave depth to his pictures, by distinguishing, by exact gradations, the spaces which his figures occupied; but his successors have far surpassed him in boldness of composition.

Leonard da Vinci, Michael Angelo, Giorgion, Titian, Bartholemew de St Marc, and Raphael, flourished about the end of the 14th century. Leonard da Vinci was the inventor of a great many details in the art: Michael Angelo, by studying the ancients, and by his knowledge of anatomy, arrived at great elegance in drawing the outlines of his figures: Giorgion enriched the art in general, and gave greater brilliancy to his colours than his predecessors: Titian, by a careful imitation of nature, made great proficiency in the truth and perfection of his tones: Bartholemew de St Marc studied particularly the part of drapery, and discovered the *claro-obscuro*, the best manner of giving drapery to his figures, and of making the naked to be felt even where they were covered: Raphael, endowed with a superior genius, began with studying carefully all his predecessors and all his contemporaries. He united in himself all the excellencies which they possessed; and formed a style more perfect and more universal than any painter who went before or who has succeeded him. But while he excelled in every part of the art, he was chiefly superior in those of invention and of composition. It is probable that the Greeks themselves would have been filled with admiration if they had beheld his chief pieces in the Vatican, where to the greatest abundance of paintings is joined so much perfection, and purity, and ease.

After painting had arrived at the greatest perfection among the Greeks by the exertions of Zeuxis and Parrhasius, Apelles found nothing to add to the art except grace; in the same manner among the moderns, after Raphael had appeared, grace was the only thing wanting to the art, and Corregio became the Apelles of Europe. Painting was by him carried to the highest degree among the moderns; the taste of the best critics and the eye of the vulgar were equally gratified.

After these great masters a considerable interval elapsed till the time of the Caracci. Those artists, born at Bologna, by studying the works of their predecessors with great care, and particularly those of Corregio, became the first and the most celebrated of their imitators. Hannibal possessed a very correct design, and united somewhat of the ancient style to that of Lewis his brother; but he neglected to inquire into the intricate principles and philosophy of the art. The pupils of the Caracci formed a school after their manner; but Guido, a painter of an easy and happy talent, formed a style altogether graceful, and rich, and easy. Guershen formed after Caravaggio, or invented himself a particular style of the *claro-obscuro*, composed of strong shades and vivid oppositions.

Peter de Cortone succeeded those great imitators of their predecessors and of nature; who finding it difficult to succeed in that kind of painting, and having besides great natural abilities, applied himself chiefly to composition or arrangement, and to what the artists call taste. He distinguished invention from composition; appeared not to have attended to the former,

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but chiefly to those parts which are most prominent in the picture, and to the contrasting of groups. It was then that the practice was introduced of loading pictures with a great number of figures, without examining whether or not they agreed to the subject of the history. The ancient Greeks employed a very small number of figures in their works, in order to make the perfection of those which they admitted more evident. The disciples or imitators of Cortona, on the other hand, have sought to conceal their imperfections by multiplying their figures. This school of Cortona is divided into many branches, and has changed the character of the art. The multiplication of figures, without a judicious and proper choice, carried back the art of painting to that point where the first restorers of it among the moderns had left it; while at the same time the disciples of Cortona were enabled to give to this first condition of the art a greater degree of perfection than the first artists.

About the middle of the 17th century flourished at Rome Carlo Maratti, who, aiming at the greatest perfection, carefully studied the works of the first painters, and particularly those of the school of the Caracci. Although he had already studied nature, he discovered by the works of these artists that it is not always proper to imitate her with a scrupulous exactness. This principle, which he extended to every part of the art, gave to his school a certain style of carefulness, which however is considerably degenerated.

France has also produced great masters, particularly in the part of composition; in which Poussin, after Raphael, is the best imitator of the style of the ancient Greeks. Charles le Brun and many others distinguished themselves for great fertility of genius; and as long as the French school departed not from the principles of the Italian school, it produced masters of great merit in the different branches of the art.

Mengs, from whom this account is taken, is not deceived when he declares the art of painting to have degenerated in France after Le Brun; but he seems to be mistaken in giving the imitation of the works of Rubens found at Paris as the cause of this decay. It appears from this opinion, that the recent French school was not well known to him. The French, indeed, if we may believe their own authors, were never much occupied in the imitation of Rubens; and they have for a long time despised him. But the perfection of the dramatic art in France, the dress of their actors, the magnificence and manners of the court, have contributed very much to the decay of painting. Instead of forming their taste on the beautiful simplicity of nature, their painters studied the gestures and the attitudes of comedians, the fopperies of women of fashion, the affected airs of courtiers, the pageantry of Versailles, and the magnificence of the opera. Mengs says, "that the French have formed a national style, of which ingenuity and what they call *esprit* are the discriminating qualities; that they have ceased to introduce Greek, Egyptian, Roman, or barbarian personages into their paintings; and that, after the example of Poussin, they content themselves with figures altogether French, as if it were their intention to hand down to posterity that such a nation once existed."

Since, according to the confession of Mengs, their

figures are altogether French, there is no reason to believe that the French painters have imitated Rubens, whose works are marked much more strongly than those of his master Æneus with the Flemish character. The truth is, that their painters, like Cortona and Maratti, have crowded their pictures with a great number of figures; have grouped them in a manner most calculated to strike the senses; have been more intent on agreeable artifices than expression and beauty; and, finally, that they have borrowed the manners of the court and theatre.

The first masters of the great schools of painting, with the ancients and nature for their guides, and their genius for their support, carried every part of the art to the greatest height of perfection. Those who followed them, and who had the example of their predecessors in addition to the first sources of truth and beauty, did by no means arrive at the same excellence. The Caraccis in their school, Paul Veronese, and all the painters of his time, Vandyke, and all those who exercised the art in Italy, in Flanders, and in France, supported it with great brilliancy. But soon after the number of artists was multiplied; and slavishly copying men of inferior talents, they produced works of an inferior nature. Some wanting to be colourists, their pieces were exaggerated; others affecting simplicity, became cold and insipid. At this period of the art, men of real abilities, and covetous of fame, who wished to rise superior to the mediocrity of the times, seem not to have taken the road of truth and nature. They affected a style of pompous preparation, and annexed a kind of merit to the expert management of the pencil. The affected forms of Cortona and of his pupils, the fantastical attitudes and the poignant effects of Piazzetta, and in short the ingenious contrivances of the last masters of the French school, are decided proofs of this increasing bad taste.

It appears, that for some time past greater pains has been taken to form men for the art than to encourage those who possess the talent. In consequence of this ruinous practice, schools for drawing, very different from those formed by able painters, have been exceedingly multiplied; and these give the elements according to an uniform system, by which the mind is laid under a regular restraint at the very threshold of the profession. This evil is productive of two inconveniences; it gives middling painters, and it multiplies them to that degree, as to hasten the downfall and bring into contempt the art itself.

The particular reputation of the Italian painters furnishes another reason for the decline of the art. The first painters of that country were few in number; they were honoured, and they deserved to be honoured. Their distinguished reputation has conferred a value on the general paintings of their countrymen. The desire of possessing taste, or of being thought to possess it, has led the rich and the ignorant of all nations to give a preference to the Italian market. Necessity, in this case, would multiply the painters; and their abilities must bear a pretty exact proportion to the discrimination of those who give the price.

The decline of painting has also arisen from the despotism which for some time reigned in the academic societies. In fact, these have often been ruled by men

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Schools. men who would force every exertion of genius into their peculiar tract of operation. If they required such or such merit of execution, the first principles of the art were neglected for that peculiar excellency. In this manner the schools were absolute in behalf of design as long as statuary was held in chief estimation. The artist, whose abilities and inclination led him to colouring, was obliged to abandon a pursuit which could be of no service to him, and devote himself to that for which he was not qualified by nature. On the other hand, if the instructions of the schools be confined to colouring, a mind disposed to the choice and exactness of forms will find no encouragement, and be for ever lost to the art. In this manner the ignorance of those who wish to be connoisseurs, and the narrow views of those who pretend to direct the general taste, have equally contributed to the decline of the arts.

SECT. II. *Of the Schools.*

A SCHOOL, in the fine arts, denominates a class of artists who have learned their art from a certain master, either by receiving his instructions, or by studying his works; and who of consequence discover more or less of his manner, from the desire of imitation, or from the habit of adopting his principles.

All the painters which Europe has produced since the renovation of the arts are classed under the following schools: the school of Florence, the school of Rome, the school of Venice, the Lombard school, the French school, the German school, the Flemish school, the Dutch school, and the English school.

¹³
School of
Florence.

This school is remarkable for greatness; for attitudes strikingly in motion; for a certain dark severity; for an expression of strength, by which grace perhaps is excluded; and for a character of design approaching to the gigantic. The productions of this school may be considered as overcharged; but it cannot be denied that they possess an ideal majesty, which elevates human nature above mortality. The Tuscan artists, satisfied with commanding the admiration, seem to have considered the art of pleasing as beneath their notice.

This school has an indisputable title to the veneration of all the lovers of the arts, as the first in Italy which cultivated them.

Painting, which had languished from the destruction of the Roman empire, was revived by Cimabue, born of a noble family in Florence in the year 1240. This painter translated the poor remains of the art from a Greek artist or two into his own country. His works, as may easily be imagined, were in a very ordinary style, but they received the applause and admiration of his fellow citizens; and if Cimabue had not found admirers, Florence in all probability would not have been honoured with Michael Angelo. The number of painters became soon so considerable in Florence, that in the year 1350 they established a society under the protection of St Luke.

Massolino, towards the beginning of the 15th century, gave more grandeur to his figures, adjusted their dress better, and shed over them a kind of life and expression. He was surpassed by Massacio his pupil; who first gave force, animation, and relief to his works.

Schools. Andrew Castagna was the first Florentine who painted in oil. But Leonardo da Vinci and Michael Angelo, contemporary painters, were the glory of the school of Florence. Michael Angelo was superior to Leonardo in grandeur, in boldness of conception, and in knowledge of design; but Leonardo was superior to him in all the amiable parts of the art. Leonardo, possessed of a fine imagination, and full of sensibility, devoted himself in painting to express the affections of the soul; and if, in this sublime branch of the art, he was afterwards surpassed by Raphael, he had at least the glory not only of exceeding all the painters who went before him, but of pursuing a path which none of them had attempted. His design was pure and neat, and not wholly destitute of greatness. He never went beyond nature, and he made a good choice of objects for imitation.

Michael Angelo, less formed to experience sweet affections than vehement passions, sought in nature what the strength of man might accomplish, not that which constitutes beauty. He delighted in being great and terrible, more than in graceful and pleasant attitudes. Well acquainted with anatomy, he knew more exactly than any other artist in what manner to express the joining of the bones of the body, and the office and insertion of the muscles; but too eager to display his knowledge of anatomy, he seems to have forgotten that the muscles are softened by the skin which covers them; and that they are less visible in children, in women, and in young men, than in confirmed and vigorous manhood. "In his figures (says Mengs) the articulations of the muscles are so easy and free, that they appear to be made for the attitude in which he represents them. The fleshy parts are too much rounded, and the muscles are in general too large and of too equal strength. You never perceive in his figures a muscle at rest; and although he knew admirably well how to place them, their action is very frequently inconsistent with their situation."

"He did not possess (says Sir Joshua Reynolds) so many delightful parts of the art as Raphael; but those which he had acquired were of a more sublime nature. He saw in painting little more than what might be attained in sculpture; and he confined it to exactness of form and the expression of passions."

He informs us, in one of his letters, that he modelled in earth or wax all the figures which he intended to paint. This method was familiar to the great painters of his time, and ought never to be abandoned. It appears, that in representing them in this manner in relief, the painter can imitate them much more exactly than when they are drawn with a crayon or pencil on a plain surface.

"Michael Angelo (continues Sir Joshua Reynolds) never attempted the lesser elegancies and graces in the art. Vasari says, he never painted but one picture in oil; and resolved never to paint another, saying it was an employment only fit for women and children."

"If any man had a right to look down upon the lower accomplishments as beneath his attention, it was certainly Michael Angelo; nor can it be thought strange, that such a mind should have slighted, or have been withheld from paying, due attention to all those graces and embellishments of art which have diffused such lustre over the works of other painters."

Ancient.

Schools.
14
Roman
School.

Ancient Rome, rich with the works brought from Greece, or finished in its own bosom by Grecian artists, handed down in its ruins the remains of that glory to which it had been elevated. It was by the study of these remains that the modern artists were formed: they derived from them the knowledge of design, the beauty of exquisite forms, greatness of style, and justness of expression, carried to that length only which did not affect the beauty of the figure. From them also they derived the principles of the art of drapery; and they followed these principles even while they made the drapery of modern paintings more large and flowing than what was practised by the ancient sculptors. The Roman school was altogether devoted to the principal parts of the art, to those which require genius and vast conceptions; and was no farther occupied with colours than what was necessary to establish a difference between painting and sculpture, or rather between painting varied with colours and in *claro-obscuro*.

Raphael Sanzio, born at Urbino in 1483, and scholar to Pietro Perugino, was the undoubted founder of this school. His first manner was that of Perugino his master; but he travelled twice to Florence to study the great artists who flourished in that city.

It was fortunate for Raphael, says Mengs, that he was born in what he terms the infancy of the art, and that he formed himself by copying nature before he had access to see the works of any great master. He began by studying, with great exactness, the simple truth in his figures. He was then ignorant that any choice was necessary; but he saw the works of Leonardo da Vinci, of Massaccio, and of Michael Angelo, which gave his genius a new direction. After this he perceived that there was something more in the art of painting than a simple imitation of truth. But the works of those masters were not sufficiently perfect to point out the best choice to make; and he continued in uncertainty till he saw at Rome the works of the ancients. Then he perceived that he had found the true models which he wanted; and in imitating them he had only to follow the natural impulse of his genius.

Habituated by his first manner to imitate nature with precision, it was not difficult to carry the same exactness into the imitation of the ancients; and it was a great advantage to him that he flourished in an age wherein the artists were not arrived at facility of execution at the expence of rigorous exactness. He never lost sight of nature; but he was instructed by the ancients in what manner she should be studied. He perceived, that the Greeks had not entered into minute details, that they had selected what was great or beautiful, and that one of the chief causes of the beauty of their works was the regularity of their proportions: he began, therefore, by carefully studying this part of the art. He saw also that the joinings of the bones, and the free play of their articulations, are the causes of all graceful movement: he therefore, after the example of the ancients, gave the greatest attention to this part, and was led by these observations not to be contented with the simple imitation of nature.

His design is excellent, but neither so perfect nor so finished as that of the Greeks. He excelled in re-

presenting the character of philosophers, apostles, and other figures of that kind; but he did not equal the Greeks in ideal figures, which ought to carry the impression of divinity. His taste for design was more Roman than Greek, because he formed it chiefly on the basso-relievos which he found at Rome. On this account he had the habit of marking strongly the bones and the articulations, and labouring the fleshy parts less; but as these basso-relievos are very exact with regard to the reciprocal proportions of every member, he excelled in this part, while at the same time he did not give to his figures all the elegance of the Greek artists, nor the flexibility of articulation which is admired in the Laocoon, in the Apollo of Belvidere, and in the Gladiator.

The manners and spirit of his age, and the subjects which he most commonly treated, prevented him from reaching the ideal of the ancients. Having seldom occasion to represent figures altogether ideal, he devoted himself to purity of expression. He knew that the expression of the passions of the soul is absolutely necessary in an art which represents the actions of men, since from those affections the actions may be said truly to originate. To make figures act, and yet neglect the interior springs of action, is nothing more than a representation of automata. The attitudes and action are evident; but they appear not to act of themselves, because they are void of those principles from which alone men are supposed to act. An artist who neglects expression, gives no just representation of character, even though he should take nature for his model.

Raphael's first care, when he wanted to compose a piece, was to weigh the expression; that is to say, to establish, according to the nature of the subject, the passions which were to animate the characters. All the figures, all the accessories, all the parts of the composition, were moulded to the general expression.

As he had not found examples in the ancient statues of the *claro-obscuro*, he was comparatively weak in this part; and if there was any thing remarkable in his distribution of light and shade, he owed it to the works of the Florentine painters. It cannot be said, however, even with regard to the *claro-obscuro*, that he imitated nature without taste. He delighted in what are called *masses* of light; and disposed the great lights in the most conspicuous places of his figures, whether naked or in drapery. If this method did not produce effects highly illusive, it gives his works that distinctness which makes his figures conspicuous at a distance; and this must be allowed to be an essential part of the art of painting. He did not proceed beyond this; and content with that kind of *claro-obscuro* which comprehends imitation, he never attempted that which is ideal.

The composition and the *ensemble* of his figures were the chief excellences of Raphael. His philosophical mind could not be affected with objects which had not expression. He had too high an idea of painting to consider it as a mute art; he made it speak to the heart and soul; and he could only do this in subjects which required expression. If Raphael did not reach the Greek excellence, if he did not possess the art of embellishing nature in the same high degree, he saw at least, and imitated her in whatever was expressive and beau-

Schools.

Schools. beautiful. "The Greeks sailed with majesty (says Mengs) between earth and heaven: Raphael walked with propriety on the earth."

"Composition is in general (says the same author) of two kinds: Raphael's is the expressive kind; the other is the theatrical or picturesque, which consists of an agreeable disposition of the figures. Lanfranc was the inventor of this last, and after him Pietro de Cortona. I give the preference to Raphael; because reason presides over all his works, or at least the greatest part of them. He never allowed himself in common ideas, and was never allured to give any thing in his accessory figures which might turn the attention from the principle object of the piece."

A history of the schools is nothing more than a history of the painters who founded them. In those two which we have already given, Michael Angelo and Raphael come readily forward to claim our attention; and therefore we cannot do better than conclude the account by the masterly contrast of these eminent painters given by Sir Joshua Reynolds. "If we put those great artists (says he) in a light of comparison with each other, Raphael had more taste and fancy, Michael Angelo more genius and imagination. The one excelled in beauty, the other in energy. Michael Angelo has more of the poetical in operation; his ideas are vast and sublime; his people are a superior order of beings; there is nothing about them, nothing in the air of their actions, or their attitudes, or the style and cast of their limbs or features, that puts one in mind of their belonging to our species. Raphael's imagination is not so elevated; his figures are not so much disjointed from our own diminutive race of beings, though his ideas are chaste, noble, and of great conformity to their subjects. Michael Angelo's works have a strong, peculiar, and marked character; they seem to proceed from his own mind entirely; and that mind so rich and abundant, that he never needed, or seemed to disdain, to look abroad for foreign help. Raphael's materials are generally borrowed, though the noble structure is his own. The excellency of this extraordinary man lay in the propriety, beauty, and majesty of his characters; his judicious contrivance of composition, correctness of drawing, purity of taste, and the skilful accommodation of other mens conceptions to his own purpose."

15
Venetian
school.

This school is the child of nature. The Venetian painters, not having under their eyes like the Roman the remains of antiquity, were destitute of the means of forming a just idea of the beauty of forms and of expression. They copied without choice the forms of nature; but they were chiefly delighted with the beauties which presented themselves in the mixture and the variety of natural colours. Their attention not being detached from this part by any thing of greater importance, colouring was their chief object, and they succeeded in it. They did not rest contented with characterizing the objects by comparison, in making the colour proper for one of more value by the colour more proper for another; but they endeavoured still farther, by the agreement and opposition of the coloured objects, and by the contrast of light and shade, to produce a vigorous effect, to demand and fix the attention. Dominic, who was said to have perished at Florence by the jealousy of André Castagna,

Schools. and who was the second Italian artist who painted in oil, had educated, before he quitted Venice, his native country, Jacques Bellin, who was remarkable for nothing but the picturesque education which he gave to Gentel and John his two sons.

Gentel, who was the eldest, painted chiefly in water colours. John contributed much to the progress of his art in painting constantly in oil, and after nature. Although he always retained great stiffness in his manner, he had less than his father or brother. Great neatness of colouring, and an approach to harmony, are evident in his works. His taste in design is Gothic, the air of his heads is sufficiently noble, his attitudes are without judgment, and his figures without expression. He had for scholars Giorgion and Titian, who deserve to be considered as the founders of the Venetian school.

Giorgion distinguished himself by a design of a better taste than that of his master; but he chiefly surpassed him in colouring. He died in his 32d year; and excited the emulation of Titian, who soon greatly excelled him.

Tiziano Vecelli, known best by the name of *Titian*, was instructed to copy nature in the most servile manner in the school of John Bellin; but when he had seen the works of Giorgion, he began to study the ideal in colouring.

The truth of history is not to be expected in his historical paintings, or in those of the artists of the same school. He seems to have paid little attention to the consistence of scene, to the costume, to expression adapted to the subject, or, finally, to the accommodation of parts which characterise the works of those who have studied the ancients. He was in short a great painter, and nothing more.

But although he deserves not to be placed among the most distinguished artists in point of judgment, yet he is by no means destitute of great and noble conceptions. There is often to be found among his male figures a considerable degree of grandeur; but if he has sometimes, like Michael Angelo, overcharged his design, it was more discovered in the swelling of the soft and fleshy parts, than in vigour and muscular strength.

Almost entirely devoted to simple imitation, he had scarcely greater choice in the *claro-obscuro* than in design. He cannot be justly reproached at the same time for weakness in this particular; because in endeavouring to imitate the colours of nature, he was obliged to observe the degrees of light. And in proportion as he succeeded in the imitation of natural colours, he must be less defective in the *claro-obscuro*; but it is not in the knowledge of this part of the art that we are to seek for the beauties of his works. These are to be found in the happy dispositions of colours both proper and local, and he carries this to the highest point of perfection.

The artists in the Florentine and Roman schools painted most commonly in water colours or in fresco; and in the exercise of their profession, instead of nature, they finished their works from their first sketches. Titian painted in oil, and finished from the objects in nature; and this practice, joined to his exquisite talents, gave the greatest truth to his colours. His being a portrait painter was also of advantage to him as

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a colourist. In this department he was accustomed to the colours of nature in carnations and draperies. He was a landscape-painter; and here also he took the colours from nature.

"As Titian perceived (says Mengs) that the objects which are beautiful in nature have often a bad effect in painting, he found it necessary to make a choice in the objects of imitation; and he observed, that these were objects of which the local colours were extremely beautiful, which nevertheless were in a great measure destroyed by the reflection of light, by the porosity of the body, and by different luminous tints, &c. He perceived also, that in every object there was an infinite number of half tints, which conducted to the knowledge of harmony. In short, he observed in the objects of nature a particular agreement of transparency, of opacity, of rudeness, and of polish, and that all objects differed in the degrees of their tints and their shades. It was in this diversity he sought the perfection of his art; and in the execution he moderated the effect of natural colours. For example, in a carnation which had many demi-tints, he confined himself to one; and he employed even less than a demi-tint, where there were few in the natural object. By this means he obtained a colouring exquisitely fine; and in this part he was a great master, and deserves to be carefully studied."

Titian has in general little expression in his pictures, and he sometimes introduces figures which augment the coldness of the piece; for if it be true that the heads, even in historical painting, ought to be studied after nature, it is true also that an individual nature ought not to be presented, but one general and ideal. It is necessary that they should be men, while they resemble not men we are accustomed to see. The painter fails in the effect which he ought to produce, if, when he represents Achilles, Hector, and Cæsar, his personages are familiar to our observation.

The colours of his paintings are so mingled together, as to give no idea of the colours on his pallet; which distinguishes him from Rubens, who placed his colours one at the side of another. It is impossible to say, on the narrowest inspection, with what colours he produced his tints. This practice, which enabled him to imitate so exactly the colours of nature, gives a marked distinction to his manner of painting. In the examination of his works, the critics lose an ordinary source of pleasure which arises from marking the freedom of hand; but they may console themselves with the natural and exquisite touches of this artist.

He is of historical painters one of those who have succeeded in landscape. His situations are well chosen; his trees are varied in their forms, and their foliage well conceived. He had a custom of representing some remarkable appearance in his landscapes to render them more striking.

16
Lombard
school.

The distinguishing characteristics of this school are, grace, an agreeable taste for design, without great correction, a mellowness of pencil, and a beautiful mixture of colours.

Antonio Allegri, called *Corregio*, was the father and greatest ornament of this school. He began like the painters of his time to imitate nature alone; but, as he was chiefly delighted with the graceful, he was
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careful to purify his design from all short turnings and unnecessary angles. He perceived that largeness contributed to grace; and therefore he not only rejected all small figures, but enlarged as much as possible the outlines, avoided acute angles and straight lines, and by these means gave an easy grandeur to his design. He made his figures elegant and large; he varied the outlines by frequent undulations; but he was not always pure and correct.

Corregio painted in oil, a kind of painting susceptible of the greatest delicacy and sweetness; and as his character led him to cultivate the agreeable, he gave a pleasing captivating tone to all his pictures. He sought transparent colours to represent shades conformable to nature, and adopted a manner of glazing which actually rendered his shadows more obscure. Obscurity in painting cannot be fully obtained without transparent colours; for these absorb the rays of light, and of consequence give less reflection. He laid his colours very thick on the brightest parts of his pictures, to make them capable of receiving, by a proper touch, the greatest degree of light. He perceived, that the reflections of light correspond with the colour of the body from which they are reflected; and on these principles he founded his theory of colours with respect to light and shade and reflection. But it is chiefly in the colour of his shades that he deserves to be imitated; for his lights are too clear, and somewhat heavy; and his fleshy parts are not sufficiently transparent.

Harmony and grace are connected together; and on this account Corregio excelled also in harmony. As the delicacy of his taste suffered him not to employ strong oppositions, he naturally became a great master in this part, which chiefly consists of easy gradations from one extreme to another. He was harmonious in his design, by making the lines which formed the angles of the contour arched and undulated. Both in the lights and shades, he placed always between the two extremes a space which served to unite them, and to form a passage from the one to the other. The delicacy of his organs made him perceive, better than any other artist, what relief was necessary to the eye after a violent exertion; and he was therefore careful to follow a bold and prevailing colour with a demi-tint, and to conduct the eye of the spectator, by an invisible gradation, to its ordinary state of tension. In the same manner (says Mengs) does agreeable and melting music pull one so gently out of sleep, that the awaking resembles enchantment more than the disturbing of repose. A delicate taste in colours, a perfect knowledge of the claro obscuro, the art of uniting light to light, and shade to shade, together with that of detaching the objects from the ground, inimitable, grave, and perfect harmony, were the qualities which distinguished Corregio from all the painters, and placed him near the head of his profession.

The Carracci, Lewis, Augustin, and Hannibal, formed what is called the *second Lombard school*, which is frequently distinguished by the name of the *school of Bologna*.

Lewis was the master of the other two; he had studied the works of Titian and Paul Veronese at Venice, those of André del Sarte at Florence, those of Corregio at Parma, and those of Jules Romaen at

Mantua,

Schools. Mantua; but he chiefly endeavoured to imitate the manner of Corregio. Hannibal fluctuated between Corregio and Titian. Augustin their rival in painting had his mind cultivated by learning, and devoted part of his time to poetry and music, to dancing and to other manly exercises. These three painters often employed their talents on the same piece; and it was admirable that their united labours seemed to be animated with the same spirit.

They established an academy at Bologna, which their zeal for the advancement of their art made them call *l'Accademia degli Desiderosi*; but it was afterward called the *Academy of the Carracci*, because the reputation which these artists acquired, permitted not a more illustrious name to be given to an establishment of which they were the founders. In this school were taught the art of constructing models, perspective, and anatomy; lessons were given on the beautiful proportions of nature, on the best manner of using colours, and on the principles of light and shade. They held frequent conferences, in which not only artists, but men of general knowledge, were permitted to elucidate points relative to the art of painting; but they were separated upon Hannibal's going to Rome to adorn the gallery of the cardinal Farnese.

The works of the Carracci are often, from the resemblance of their manner, confounded together; especially those which were finished previous to the residence of Hannibal at Rome. Meanwhile each of them has a decided character distinct from the other two. Lewis had less fire, but more of gracefulness and grandeur: Augustin had more spirit in his conception, and more pleasantness in his execution: Hannibal is characterized by boldness, by a design more profound, by an expression more lucky, and by an execution more solid.

Sir Joshua Reynolds, who saw the works of Lewis at Bologna, holds him out in his discourses as the best model for what is called *style* in painting; which is the faculty of disposing colours in such a manner as to express our sentiments and ideas. "Lodovico Carracci," says he, "(I mean in his best works) appears to me to approach the nearest to perfection. His unaffected breadth of light and shadow, the simplicity of colouring, which, holding its proper rank, does not draw aside the least part of the attention from the subject, and the solemn effect of that twilight which seems diffused over his pictures, appears to me to correspond with grave and dignified subjects better than the more artificial brilliancy of sunshine which enlightens the pictures of Titian."

Hannibal is esteemed by the best judges as a model for beauty and design. Those who blame him for becoming less a colourist at Rome than he was at Bologna, ought to recollect that it is his performances at Rome which have chiefly secured his reputation. Severe critics have maintained that his design is too little varied in his figures; that he excels only in male beauty; that in imitating ancient statues, he excites some resemblance, but without arriving at the sublimity of ideas and of style which characterize the ancients; or, in other words, that he hath successfully imitated the exterior of their manner, but that he was incapable of reaching the interior and profound reasonings which determined those admirable artists.

The success of Hannibal, and the reputation which he

acquired, have been pernicious to the art. His successors, deluded by these considerations, have made him the object of their imitation, without ascending to the sources from which he derived his knowledge, and which he never could equal. The result has been, that, instead of becoming equal to Hannibal, they have often copied his imperfections.

17 The French School. This school has been so different under different masters, that it is difficult to characterize it. Some of its artists have been formed on the Florentine and Lombard manner, others on the Roman, others on the Venetian, and a few of them have distinguished themselves by a manner which may be called their own. In speaking in general terms of this school, it appears to have no peculiar character; and it can only be distinguished by its aptitude to imitate easily any impression; and it may be added, speaking still in general terms, that it unites, in a moderate degree, the different parts of the art, without excelling in any one of them.

It is equally difficult to determine the progress of painting in France. Miniature painting, and painting on glass, were early cultivated in that country; and in these two kinds, the Italians had often recourse to the French artists. When Francis I. encouraged Rosso a Florentine, and Primatice a Bolognian, the painters in France were not remarkable for any superior talent; but they were capable of working under these foreign artists.

Cousin, a painter on glass and portrait-painter, was the first who established any kind of reputation in France. He was correct, but possessed very little elegance of design.

Painting, for some time encouraged by Francis I. fell into a state of languor, from which it was not recovered till the reign of Louis XIII. Jacques Blanchard, formed at the Venetian school, and called *the French Titian*, flourished about this period. But as he died young, and without educating any pupils to perpetuate his manner, he must be regarded as a single good artist, and not as a founder of the French school.

In the same manner Poussin, one of the greatest French painters, and whom they call *the Raphael of France*, educated no pupils, nor formed any school. His style and character of painting are described by Sir Joshua Reynolds as simple, careful, pure, and correct. No works of any modern (adds the same author) have so much of the air of antique painting as those of Poussin. His best performances have a remarkable dryness of manner, which, though by no means to be recommended for imitation, yet seems perfectly correspondent to that ancient simplicity which distinguishes his style.

In the latter part of his life he changed from this manner to one much softer and richer; where there is a greater union between the figures and the ground. His favourite subjects were ancient fables; and no painter was ever better qualified to paint such subjects, not only from his being eminently skilled in the knowledge of the ceremonies, customs, and habits of the ancients, but from his being so well acquainted with the different characters which those who invented them gave their allegorical figures.

If Poussin, in the imitation of the ancients, represents Apollo driving his chariot out of the sea by way

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of representing the sun rising, if he personifies lakes and rivers, it is no way offensive in him, but seems perfectly of a piece with the general air of the picture. On the contrary, if the figures which people his pictures had a modern air or countenance, if they appeared like our countrymen, if the draperies were like cloth or silk of our manufacture, if the landscape had the appearance of a modern view, how ridiculous would Apollo appear? instead of the sun, an old man; or a nymph with an urn, instead of a river or a lake.

Poussin, however, more admired than imitated, had no manner of influence in forming the French school. Simon Vouet, his enemy and persecutor, had this honour, because his pupils, in the happy age of the arts in France, conferred on it the greatest splendour. Vouet was a man of distinguished abilities; but the school which he erected would have had no continuance if his scholars had pursued his manner of painting. He had a kind of grandeur and facility; but his design was false with regard to colours, and without any idea of expression. It was said of him, that he only needed to take the pencil in his hand to finish with one stroke the subject which he had conceived; and on this account one is tempted to be pleased, because he is astonished. He had the merit of destroying the insipid manner which reigned in France, and of pointing the way to a better taste.

If Vouet laid the foundation of the French school, Le Brun finished the edifice. When Le Brun was placed under the tuition of Vouet, he astonished his master and the rest of his pupils with the rapidity of his progress. At the age of 26 he finished his piece called the *horses of Diomedes*, which gained a place in the palace royal (A), beside those of the most eminent painters. He was afterwards recommended to Poussin; but the young artist was more disposed by his natural inclinations to that modern part of the art which is called the *great machine*, than to the profound and studied manner of the Greek artists. Poussin at the same time was of great service to him, in recommending to his study the monuments, the customs, the dress of the ancients; their architecture, their rites, their spectacles, their exercises, their combats, and their triumphs.

Le Brun had a noble conception and a fruitful imagination. He was on no occasion inferior to the vast compositions which he undertook, and he chiefly excelled in rigorous costume and exact likenesses.

Few painters have united so great a number of essential qualities and accessories of the art; and if he had superiors, it consisted in this, that they possessed some particular quality in a more eminent degree.—He was a good drawer, but his design was far from being so elegant as that of Raphael, or so pure as that of Domenique, and it was less lively than that of Hannibal Carracci, whom he had taken for a model. In drapery he followed the Roman school: the clothes which he gave to his figures were not like those of the Venetian school, of such and such a stuff; they were draperies and nothing more, and this manner agreed with the heroic style of his works; but in this part he was not equal to the painter of Urbino.—He had studied the expression of the affections of the

soul, as is evident from his treatise on the character of the passions: but after observing the general characters, and establishing the principal strokes of expression, he thought he reached the whole extent of this subject, which is so infinitely extended. He always employed the few characters which he had once found out, and neglected to study the prodigious variety of gradations by which the interior affections are manifested in the exterior appearance. He fell then into the manner of repeating always; and possessed neither the delicacy, nor the depth, nor the extreme justness, of Raphael's expression. He loved and possessed in a high degree the grand machine of the art; he was delighted with great compositions; and he gave them life, and animation, and variety; but he wanted the vigour and inspiration of Raphael. His compositions are formed on philosophical principles, but those of Raphael are created. Le Brun thought well; Raphael, Poussin, le Sueur, thought most profoundly.—Le Brun had elevation, but he was not elevated like Raphael, to the sublime.

In colouring, Le Brun did not imitate the painters of the Venetian school. The sweet attractions and strong and solid colours of the schools of Rome and Lombardy seem rather to have been the object of his imitation; and from them also he learned an easy, agreeable, and bold management of the pencil.

As Le Brun possessed a great share of lively imagination, he delighted in allegory, which gives the greatest scope for ingenious invention. The fecundity and resources of his imagination appeared still farther, in his inventing symbols for his allegorical figures, without resting contented with those employed by the ancients. But fanciful representations of this kind are distant from the operations of true genius. Spirit and thought in the arts are very different from spirit and thought in literary productions. A painter of moderate abilities may introduce into his works a great deal of the invention which belongs to poetry without enriching his peculiar art. The true spirit of painting consists in making the figures appear in the very circumstances and attitudes in which they are supposed to act, and penetrated with the sentiments with which they ought to be affected. By these means the spectator is more certainly interested than if the actions and thoughts were represented by allegorical symbols. Poussin appears to have less waste of spirit and imagination than Le Brun, while at the same time he gives more delight to people of spirit and imagination.

Eustach le Sueur was the contemporary and rival of Le Brun; and no painter approached nearer to Raphael in the art of drapery, and in disposing the folds in the most artful and the noblest manner. His design was in general more slender than that of Raphael, but, like his, it was formed on the model of the ancients. Like Raphael he represented with art and precision the affections of the soul; like him, he varied the air of the head, according to the condition, the age, and the character of his personages; and, like him, he made the different parts of every figure contribute to the general effect. His intention in composing was to express his subject, not to make shining contrasts.

(A) Where it may now be is uncertain. Perhaps it has perished in the wreck of taste, art, science, and elegance, against which French democracy has waged a ruinous war.

Schools. contrasts or beautiful groups of figures, not to astonish and bewitch the spectator by the deceitful pomp of a theatrical scene, or the splendor of the great machine. His tones are delicate, his tints harmonious, and his colours, though not so attractive as those of the schools of Venice and Flanders, are yet engaging. They steal peaceably on the soul, and fix it without distraction on the parts of the art, superior to that of colouring.

His preaching of St Paul, and the picture which he painted at St Gervais, which the critics compare with the best productions of the Roman school, and the 22 pictures which he painted for the Carthusian monastery at Paris, and which were lately in possession of the king, are esteemed his best pieces. His contemporaries affirm, that he considered as sketches merely those excellent performances which are the glory of the French school.

If Le Sueur had lived longer, or if, like Le Brun, he had been employed under a court, fond of the arts and of learning, to execute the great works of the age, the French school would have adopted a different and a better manner. The noble beauty of his heads, the simple majesty of his draperies, the lightness of his design, the propriety of his expression and attitudes, and the simplicity of his general disposition, would have formed the character of this school. The deceitful pomp of theatrical decoration would have been more lately introduced, or perhaps would never have appeared, and Paris might have been the counterpart to Rome. But as Le Brun, by an accidental concurrence of favourable circumstances, was the fashionable painter, to be employed or rewarded it was necessary to imitate his manner; and as his imitators possessed not his genius, his faults became not only current but more deformed.

The French school not long ago changed its principles; and if, when peace shall be restored to this unhappy nation, they continue to follow the road which, while the arts flourished among them, they marked out for themselves, they have the chance of becoming the most rigid observers of the laws imposed on the Greek artists. The Count de Ceyles, pupil of Bouchardon, who by his rank and fortune had the means of encouraging the imitators of the ancients, and of the masters of the 15th century, first formed the design of restoring a pure taste to the art of painting. He was seconded by the talents of M. Vien, an artist who had only occasion to have his lessons and his example laid before him.—In this manner commenced a revolution, so much the more wonderful, as it was scarcely ever known that any nation substituted a system of simple and rigid excellence in place of a false and glittering taste. The history of all nations, on the contrary, discovers a gradual progress from a rude beginning to perfection, and afterwards to irremediable decay. The French had the prospect of stopping short in this ordinary course. They began in a manner which promised success; and the best consequences may be expected, if the internal commotions of France do not destroy the taste for the arts, the exercise of which they have suspended.

18 The German school. In Germany there can hardly be said to be a school, as it is a continuation of single artists, who derived their manner from different sources of originality and imitation. There were some German pain-

ters of eminence, when the art, emerging from its barbarous state, first began to be cultivated with success in Europe. As they were totally unacquainted with the ancients, and had scarcely access to the works of their contemporaries in Italy, they copied nature alone, with the exception of somewhat of that stiffness which forms the Gothic manner. It is this manner, if we speak of the early German painters, which characterizes their school. But this is by no means the case with their successors, part of whom were educated in Flanders and part in Italy: For if Mengs or Dietrich were comprehended in this school, there would be nothing peculiar to its manner discovered in their works. And it is therefore necessary to confine our observations to the more ancient German painters, in whom the Gothic style is conspicuous.

Albert Durer was the first German who corrected the bad taste of his countrymen. He excelled in engraving as well as painting. His genius was fertile, his compositions varied, his thoughts ingenious, and his colours brilliant. His works, though numerous, were finished with great exactness; but as he owed every thing to his genius, and as works of inferior merit were by the false taste of the times preferred to his, it was impossible for him altogether to avoid the faults of his predecessors. He is blamed for stiffness and aridity in his outlines, for little taste or grandeur in his expression, for ignorance of the costume of aerial perspective and of gradation of colours: but he had carefully studied lineal perspective, architecture, and fortification.

John Holbein or Holbein, nearly contemporary with Albert Durer, painted in oil and water colours. He excelled chiefly in history and in portrait painting. His colours are fresh and brilliant, and his works are highly finished; but in his historical subjects, his draperies are not in so good a taste as those of Albert Durer.

The Flemish school is recommended to the lovers of the art by the discovery, or at least the first practice, of oil painting. Van Mander gives us the account of this wonderful discovery in the following words: "John Van Eyck was so excellent a chemist, that he discovered a method of varnishing his distemper colours with a varnish, which was made of some oils, and was very pleasing on account of the gloss and lustre it gave them. Many artists in Italy had vainly attempted to find out that secret; they never hit on the true method. It happened once that John, in his usual manner, having highly finished one of his pictures on boards, and having varnished it with his new invented varnish, exposed it to dry in the sun; but whether the boards were not well joined, or whether the heat of the sun was too violent, the boards split asunder and opened in the junctures. John saw with concern that his work was spoiled, and resolved to contrive something against future accidents of the same kind. Being disgusted at distemper painting and varnishing, he thought of a varnish that might dry without sunshine; and having tried many oils and substances, he found that linseed and nut oil dried better than any other. He boiled them with some other drugs, and produced the best varnish in the world. Ever bent on improvement, he found, after much inquiry, that colours mixed with these oils worked and dried extremely well, and when dried would

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be water-proof. He observed likewise, that these oils would animate and give them a gloss and lustre without any farther varnishing." The truth, however, of this account is now very much questioned; and it is even proved by the manuscripts of Theophilus Presbyter, and also by some old oil paintings in England, that this method of painting was discovered long before the time of John Van Eyck. At the same time we admit, that John and his brother Hubert may have been the first who brought oil painting into general practice, not only by showing the excellence of which it was susceptible, but also by making several improvements on the art. And this is the more probable, from the great reputation which their pictures acquired over all Europe by the softness and delicacy of their colours. The attention of the Italian painters was chiefly excited, insomuch that Antoine de Messina performed a journey into Flanders for the express purpose of acquiring the confidence of John Van Eyck, and of discovering the secret.

John de Bruges was the founder of painting as a profession in Flanders; Peter Paul Rubens was the founder of the art. This extraordinary person produced an immense number of works. He excelled equally in historical, portrait, and landscape painting; in fruits, flowers, and in animals. He both invented and executed with the greatest facility; and to show the extent of his powers, he frequently made a great number of sketches of the same subject altogether different, without allowing any time to elapse between them. The works of Rubens were destitute of that soft inspiration, productive of sweet and pleasant effects, so conspicuous in the works of Raphael; but he possessed that sprightliness of genius and strength of mind which is ever ready to burst forth in wonderful and astonishing effects. His figures appear to be the exact counter-part of his conceptions, and their creation nothing more than a simple act of the will.

His talent for design is unjustly censured, for on every occasion his design is noble and easy. He had great knowledge of anatomy, but he was hurried away by the impetuosity of his imagination and the ardour for execution; he preferred splendor to the beauty of forms, and sacrificed correctness of design too often to the magic of colours. In short, his qualities suppose a mind full of fire and vigour, rather than accuracy or profound thought. His drapery may be considered rather as fine than properly adapted to his figures: for, in the language of the art, to *clothe* and to *give drapery* are not synonymous terms. A portrait painter may excel in clothing his personages, while he is totally incapable of giving good drapery to an historical painting. His chief merit consists in colouring; though in this branch of the art he has not equalled Titian. He is the first among painters eminent for pomp and majesty; the first among those who speak to the eye, and the power of the art is often carried by him almost to enchantment.

It is evident from the works of Rubens, that his method of painting was to lay the colours in their place, one at the side of another, and mix them afterwards by a slight touch of the pencil. Titian mingled his tints as they are in nature, in such a manner as to make it impossible to discover where they began or terminated; the effect is evident, the labour is concealed. Thus Rubens is more dazzling, and Titian

more harmonious. In this part, the first excites the attention, the second fixes it. The carnations of Titian resemble the blush of nature; those of Rubens are brilliant and polished like satin, and sometimes his tints are so strong and separated as to appear like spots.

"Rubens (says Sir Joshua Reynolds) is a remarkable instance of the same mind being seen in all the various parts of the art. The whole is so much of a piece, that one can scarce be brought to believe but that if any one of them had been more correct and perfect, his works would not be so complete as they appear. If we should allow a greater purity and correctness of drawing, his want of simplicity in composition, colouring, and drapery, would appear more gross."

In his composition his art is too apparent. His figures have expression, and act with energy, but without simplicity or dignity. His colouring, in which he is eminently skilled, is notwithstanding too much of what we call *tinted*. Throughout the whole of his works there is a proportionable want of that nicety of distinction and elegance of mind, which is required in the higher walks of painting; and to this want it may be in some degree ascribed, that those qualities which make the excellency of this subordinate style appear in him with their greatest lustre. — Indeed the facility with which he invented, the richness of his composition, the luxuriant harmony and brilliancy of his colouring, so dazzle the eye, that whilst his works continue before us, we cannot help thinking that all his deficiencies are fully supplied.

The Flemish school, of which Rubens is the greatest master, is remarkable for great brilliancy of colours and the magic of the *claro-obscuro*. To these may be joined a profound design, which is yet not founded on the most beautiful forms; a composition possessed of grandeur, a certain air of nobleness in the figures, strong and natural expressions; in short, a kind of national beauty, which is neither copied from the ancients nor from the Roman nor Lombard schools, but which deserves to please, and is capable of pleasing.

To speak in general terms, and without regarding a great number of exceptions, the Dutch school acquires none of the above qualities to great perfection, except that of colouring. Far from excelling in the beauty of heads and forms, they seem chiefly to delight in the exact imitation of the lowest and most ignoble. Their subjects are derived from the tavern, the smith's shop, and from the vulgar amusements of the rudest peasants. The expressions are sufficiently marked; but it is the expression of passions which debase instead of ennobling human nature. One would think that they practised the art of degrading the bodies and souls of men.

It must be acknowledged, at the same time, that the Dutch painters have succeeded in several branches of the art. If they have chosen low objects of imitation, they have represented them with great exactness; and truth must always please. If they have not succeeded in the most difficult parts of the *claro-obscuro*, they at least excel in the most striking, such as in light confined in a narrow space, night illuminated by the moon or by torches, and the light of a smith's forge. The Dutch understand the gradations of colours; and by their knowledge of contrast they have arrived at the art of painting light itself. They have no rivals

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The Dutch school.

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in landscape painting, considered as the faithful representation or picture of a particular scene; but they are far from equalling Titian, Poussin, Claude Lorrain, &c. who have carried to the greatest perfection the ideal landscape, and whose pictures, instead of being the topographical representation of certain places, are the combined result of every thing beautiful in their imagination or in nature. The Dutch, however, distinguish themselves by their perspective, by their clouds, sea-scenes, animals, fruits, flowers, and insects; and they excel in miniature painting. In short, every thing which requires a faithful imitation, colour, and a nice pencil, is well executed by the Dutch painters.

Holland has also produced history-painters, as Octavius Van Been, and Vander Hilft the rival of Vandyke, and perhaps his superior: but it is not in the works of those artists that we find the character of the Dutch school.

Neither is the origin of their style to be derived from the works of Lucas of Leyden, though, from the time he flourished, viz. about the end of the 15th century, he may be considered as the patriarch of the Dutch school. Lucas painted in oil, in water colours, and on glass; and the kinds of his painting were history, landscape, and portrait. His picture of the Last Judgment is preserved in the Hotel-de-ville of Leyden; it possesses vast merit in point of composition, and a great variety of figures.

If miniature painting be considered as a characteristic of the Dutch school, Cornelius Polembourg may be regarded as the father of it. He possessed the colour, delicacy of touch, and disposition of the *claro-obscuro*, which chiefly distinguish this school; and if any thing is to be added, it is want of correctness in his design.

But if the choice of low figures is its chief characteristic, this is to be found in the greatest perfection in the works of the celebrated Rembrandt Vanryn; and it is the more offensive in this artist, as his compositions frequently required an opposite choice of figures. As his father was a miller near Leyden, his education must altogether have depended on the exertion of great talents and the study of nature. He studied the grotesque figure of a Dutch peasant or the servant of an inn with as much application as the greatest masters of Italy would have studied the Apollo of Belvedere or the Venus de Medicis. This was not the manner of elevating himself to the noble conceptions of Raphael; but it was acquiring the imitation of truth in vulgar painting.

“Rembrandt (says M. Descamps) may be compared to the great artists for colour and delicacy of touch and *claro-obscuro*. It appears that he would have discovered the art, though he had been the first person that ever attempted it. He formed to himself rules and a method of colouring, together with the mixture of colours and the effect of the different tones. He delighted in the great oppositions of light and shade; and he seems to have been chiefly attentive to this branch of the art. His workshop was occasionally made dark, and he received the light by a hole, which fell as he chose to direct it on the place which he desired to be enlightened. On particular occasions he passed behind his model a piece of cloth of the same colour with the ground he wanted; and this piece of cloth receiving the same ray which en-

lightened the head, marked the difference in a sensible manner, and allowed the painter the power of augmenting it according to his principles.

“Rembrandt's manner of painting is a kind of magic. No artist knew better the effects of different colours mingled together, nor could better distinguish those which did not agree from those which did. He placed every tone in its place with so much exactness and harmony, that he needed not to mix them, and so destroy what may be called the flower and freshness of the colours. He made the first draught of his pictures with great precision, and with a mixture of colours altogether particular: he proceeded on his first sketch with a vigorous application, and sometimes loaded his lights with so great a quantity of colour, that he seemed to model rather than to paint. One of his heads is said to have a nose nearly as much projected as the natural nose which he copied.”

Such is the power of genius, that Rembrandt, with all his faults, and they are enormous, is placed among the greatest artists by M. Descamps, who saw his works, and was himself an artist. It is necessary to observe, that if Rembrandt was ignorant of the essential parts of his art, or neglected them, he was yet acquainted with expression, which alone was capable of giving animation to his works. His expressions are not noble, but they are just, lively, and executed with great judgment.

John de Laer, a miniature painter, and who made choice of his subjects from common life, deserves a distinguished place in the Dutch school. He painted hunting-scenes, the attacks of robbers, public festivals, landscapes, and sea views; and he ornamented his pictures with old ruins, and enriched them with figures of men and animals. He had a correct design, and employed vigorous and lively colouring.

Van-Ostade, although born at Lubeck, Gerard Dow, Metz, Miris, Wouwerms, Berghem, and the celebrated painter of flowers Van-Huysum, belong to the Dutch school.

The greater part of the schools of which we have treated have no longer any existence. Italy alone had four schools, and there only remain at present a very few Italian artists known to foreigners. The school of Rubens is in vain sought for in Flanders. If the Dutch school still exists, it is not known beyond the precincts of Holland. Mengs a German artist has made himself famous in our days; but it was in Italy that he chiefly improved his talents and exercised his art. M. Dietrich, another German, has made himself known to strangers; but two solitary artists do not form a school.

A new school is formed in our times and in our own country, called the *English school*. It is connected with the academy in London instituted in 1766 by letters patent from the king, and formed only in 1769. Sir Joshua Reynolds is the undoubted founder of it. His works give him a distinguished rank among the artists of the present age, and exhibit a genius in their author which has seldom been surpassed: but the effects which he has contrived to give to them by the formation of a new school, and by the good principles which his discourses to academicians, and his example as a painter, have disseminated, will secure his reputation as long as England shall esteem the advantages and the worth of great abilities. The English taste appears to be formed on the great masters

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The English school.

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of the Italian and the Flemish schools. Sir Joshua was a great admirer of Michael Angelo, and particularly recommends him to the attention of the academicians. "I feel (says Sir Joshua) a self-congratulation in knowing myself capable of such sensations as he intended to excite. I reflect, not without vanity, that these discourses bear testimony of my admiration of that truly divine man; and I should desire that the last words which I should pronounce in this academy, and from this place, might be the name of—*Michael Angelo*." But though he thus enthusiastically admired this very great man, yet he allows, what cannot indeed be denied, that he was capricious in his inventions; "and this (says he) may make some circumspection necessary in studying his works; for though they appear to become him, an imitation of them is always dangerous, and will prove sometimes ridiculous. 'In that dread circle none durst tread but he.' To me, I confess, his caprice does not lower the estimation of his genius, even though it is sometimes, I acknowledge, carried to the extreme: and however those eccentric excursions are considered, we must at the same time recollect, that those faults, if they are faults, are such as never could occur to a mean and vulgar mind; that they flowed from the same source which produced his greatest beauties; and were therefore such as none but himself was capable of committing; they were the powerful impulses of a mind unused to subjection of any kind, and too high to be controuled by cold criticism."

The effect of Sir Joshua's discourses is visible in the pictures of this school. The Death of General Wolf, the Departure of Regulus for Carthage, the Arrival of Agrippina, and some other subjects, are decided proofs that the English school is acquainted with greatness of style, boldness of expression, and the art of managing a great number of figures. It will be fortunate for the painters of this school, if, more rigid with regard to their forms than ambitious of poignant and astonishing effects, they support the character which they have already acquired. But although England had not enjoyed this brilliant success in painting, she would have immortalized herself by the excellency of her engravings.

It is easy to perceive in all those schools the cause of the character which distinguishes them. In the Roman school, it is the excellent education of its first masters, together with the precious remains of antiquity found in the ruins of ancient Rome. In the Venetian school, the magnificence derived from the commerce of the east, the frequency of feasts and masquerades, and the necessity of painting to the rich and luxurious, who were accustomed to behold these magnificent objects, were the causes of its gaudy taste. In the Dutch school, the peculiarity of its grovelling manner may be accounted for from the habits of the artists. Accustomed to visit taverns and workshops, and having most commonly exposed to their view low and grotesque figures, they represent in their pictures the objects which were most familiar to them in life.

* Encyclop.

Beaux Arts,

tom. 1.

"Beauty (says a French writer*) ought to be the characteristic of the English school, because the artists have it often exposed to their view. If this beauty is not precisely similar to that among the ancients, it is not inferior to it. The English school should also distinguish itself for truth of expression;

because the liberty enjoyed in that country gives to every passion its natural and unbiassed operation. It will probably long preserve its simplicity unpolluted by the pomp of theatrical taste and the conceit of false graces, because the English manners will long preserve their simplicity. ^{Comparison between the Ancient and Modern.}

"Examine the picture of a Frenchwoman (continues he) painted by an artist of that nation, and you will generally find, in place of expression, a forced grin, in which the eyes and the forehead does not partake, and which indicates no affection of the soul. Examine the picture of an Englishwoman done by one of their painters, and you observe an elegant and simple expression, which makes you at once acquainted with the character of the person represented."

SECT. III. Comparison between the Ancient and Modern Painting.

No person of judgment or taste hesitates to give the superiority to the ancient sculpture; but the moderns comfort themselves with refusing the same superiority to the Greek artists in the art of painting. The small number of their productions which remain, and the probable conjectures which may be formed concerning those which have perished, go the length to prove that the Greek painters conducted themselves on other principles than those which have received the sanction of custom and the force of laws in our schools. But this censure might be applied with equal justice to Homer as an epic poet, and to Sophocles and Euripides as writers of tragedy.

The principal difference between the ancient and modern manner of painting consists in the complication of figures and the pompous decoration of scenery which prevails in the modern, when compared with the unity and simplicity of the ancient painters. This simplicity, however, does not seem to arise from the want of capacity, but from a choice, as Polygnotus, one of their most ancient painters, represents in one of his pieces the siege of Troy, and in another the descent of Ulysses into hell; but they soon decided in favour of simplicity, and their pieces generally contain one or two figures, and very rarely more than three or four.

Poetry in this particular is conducted on very different principles. A poet may with great propriety multiply his characters, and enter into details of a variety of actions, because the whole of his characters and actions do not occupy the mind of his reader at the same time. The whole of his art consists in making one naturally succeed another; but every part of the poem which contains a separate transaction would make a picture capable of fixing the attention. In painting, the eye takes in the whole; and it is by no means satisfied if 20 or 30 figures are presented to it, which it cannot possibly comprehend. It is in vain to group the figures, or to call the attention to the principal object by a greater degree of light; the spectator is anxious to examine every object which is presented to him; and if they are not to be examined, for what reason are they painted? An excellent piece, at the same time, consisting of a great number of figures, will give pleasure; but it is accompanied with that fatigue which one experiences when he runs over a gallery furnished with a great variety of excellent pictures.

Those

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Those observations on the attention of the spectator led the Greeks to make similar ones on the attention of the artist. They perhaps thought that the painter who had to execute a great variety of figures in the same work, could not study each of them with equal accuracy and care; and of consequence that he might produce something astonishing in the extent, and yet disgusting in the detail.

This difference, however, between ancient and modern painting, cannot give any decided principle to determine on their comparative merit. We are accustomed to behold assemblages in nature; and it is a fact, that even in affecting scenes a great number of figures may not only be brought together, but that they may heighten the distress. It is supposing a picture to have little effect, to imagine that we can coolly, and with the same kind of attention, examine the principal and the accessory figures. If it is highly finished, our whole soul must be absorbed in that object which the artist intended to be most conspicuous; and if we give any attention to the surrounding figures, we shall consider them as spectators of the same scene, and derive from them an addition of sympathy and of feeling. The whole question in this particular point of view amounts to this, that the moderns have chosen a more difficult part; and if they have executed it with success, their merit is greater. And this observation will hold good, unless it can be proved that it is utterly impossible to make an assemblage of figures lead to one general and common effect.

The proper manner of deciding the comparative merit of the ancients and moderns, is to consider, as far as we have sufficient data to go upon, to what degree the ancients excelled in the particular departments of this art. There are two sources from which we can derive information; namely, from the morsels of antiquity which yet remain, and from what the ancient writers have said on the subject of painting, both of which are extremely defective. It is allowed, however, by every skilful person who has viewed the remains of ancient paintings, that none of them appear to be the performances of superior artists, notwithstanding much merit in the design and accuracy in the drawing, which indeed seems to have been habitual to almost every ancient artist. The best among these paintings (according to Sir Joshua Reynolds), "the supposed marriage in the Aldrobandine palace," is evidently far short of that degree of excellence undoubtedly implied in the descriptions of ancient authors, and which from them we are fairly led to expect.

Still more defective, if possible, is this last species of evidence: for we have no direct treatise remaining on the subject by any of the ancients, although many were composed by their artists. The passages from which we are to decide are, either the cursory remarks of writers not expressly treating on the subject of painting, or the descriptions of those who at best can rank but as *amateurs* of a fashionable art. From these indeed we may pretty safely assert the degree of excellence which the passages imply; but we should reason very inconclusively, were we to deny them any higher or any other merit than appears to be strictly contained in these scattered observations. Let any one for a moment place the modern painters in his mind in the same situation as the ancients, and he will quickly decide on the truth of these remarks.

Nevertheless, it is necessary on this subject to derive some conclusions from the information which is occasionally given in ancient authors. That the ancients paid a particular attention to design, would be evident from the manner in which they speak of this department of the graphic art, even though the moderns were not in possession of such remaining proofs of their excellence herein (though by artists of an inferior class), as to place this point beyond the reach of doubt.

Indeed, when it is considered that, with respect to freedom and correctness of outline, painting and sculpture are very nearly connected; that Phidias and Apelles were nearly contemporaries; that many of the ancient painters, such as Zeuxis, Protogenes, Apelles, &c. were accustomed to modelling for the purpose of sculpture or of casting; that the extreme elegance of design in the ancient statues is so notorious as to be the acknowledged model even for modern artists; and that these ornaments of sculpture were well known and universally admired among the ancients—we shall have little hesitation in admitting their equality with the moderns so far as design is concerned. But should any doubt remain on this point, the drawings from the antiquities of Herculaneum will be striking proofs that truth, elegance, and spirit, in a degree rarely to be met with among the moderns, were habitual even to the common run of artists in the declining age of ancient painting.

The ancients excelled moreover not merely in the common and obvious parts of design; but they appear to have had no inconsiderable degree of skill in the art of *foreshortening*. The performance of Paulias is a proof of this: *Fecit autem grandes tabulas sicut spectatam in Pompeii porticibus boum immolationem. Eam enim picturam primus invenit, quam postea imitati sunt multi, equavit nemo. Ante omnia, cum longitudinem bovis ostendere vellet, adversum eum pinxit, non transversum, et abunde intelligitur amplitudo. Dein cum omnes qui volunt eminentia videri, candicantia faciant, coloremque condant, hic totum bovem atri coloris fecit; umbræque corpus ex ipso dedit; magna prorsus arte in æquo extantia ostendens et in confracto solida omnia.*

Nor will it be difficult to show, that the ancient painters were not inferior to the moderns in *expression*. The state of sculpture alone among the ancients would almost furnish a decisive proof that the sister art of painting could not be deficient. Among the ancient statues which yet remain, expression is carried to a wonderful height; not merely the features of the face, but almost every muscle of the body, combining to enforce the idea intended to be conveyed.

Mr Webb* very properly observes, that "the ancients thought characters and manners so essential to painting, that they expressly term *picture* an art descriptive of manners. Aristotle in his *Poetics* says of Polygnottus, that he was a painter of the manners; and objects to Zeuxis, his weakness in this part." We have in Philostratus the following description of a picture: "We may instantly (says he) distinguish Ulysses by his severity and vigilance; Menelaus by his mildness; and Agamemnon by a kind of divine majesty. In the son of Tydeus is expressed an air of freedom; Ajax is known by his sullen fierceness; and Antilochus by his alertness. To give to these such sentiments and actions as are consequential from their peculiar characters, is the ethic of painting."

Another

Comparison between the Ancient and Modern.

* On Painting and Poetry, p. 149.

Compari-
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Another instance of excellence in expression among the ancient paintings was the Medea of Timomachus. She was painted about to kill her infants. Ausonius speaks with admiration of the mingled expression of anger and maternal fondness in her face and manner.

*Immanem exhaustit rerum in diversa laborem
Fingeret affectum matris ut ambiguum,
Ira sub est lachrymis, miseratio non caret ira,
Altere utrum videas ut sit in altere utro.*

It may not be amiss, however, at this period of our inquiry, to make some observations on the testimonies of ancient authors respecting this subject.

It is certainly true, that when the works of an ancient artist are praised for any real or supposed merit, the commendations will be relative to the degree of perfection to which the art had arisen at the time, and to the opportunities of information, the taste, and judgment of the person who bestows them. Excellence will always be ascribed to him who leaves his contemporaries far behind; and those performances will often be considered as supremely beautiful which exceed in beauty all that have gone before.

In like manner, a person of natural sensibility, but who has been accustomed all his life to performances of an inferior stamp, will be in raptures at any which much exceed the best he has heretofore been taught to admire; and whatever opportunities of information he may have, his evidence will not be of much weight, if he do not possess a sufficient degree of taste and judgment to use them properly.

In ascertaining therefore the degree of credit due to the praises bestowed on any performance in a branch of the fine arts, we must take into consideration the general state of the art at the time, and the competence of the person who bestows the praise.

No slight degree of probability, however, may be attained on both these points, by attending to a circumstance not generally noticed, viz. that in an advanced state of the art, and when the observer is acquainted with his subject, the praise will seldom be given in loose, general, and comprehensive expressions; but the terms in which it is conveyed will be characteristic and determinate, and often technical; they will frequently show the state of the art, by marking the subdivisions and the skill of the observer by judicious discrimination. When, added to these, the latter can resort for comparison to any existent standard of perfection, his praise may fairly be adopted in its full extent, and regarded as evidence upon the point in question.

To apply these observations to painting, it is clear, with respect to the most difficult, the most fundamental, and the highest in rank among the departments of the art, viz. design and expression, that the ancients were fully equal to the moderns; and their expressions of praise must be allowed to imply an equal degree of absolute skill, with similar expressions, if applied to the great masters of modern art. It is also clear that painting was extremely cultivated among the ancients, and that their good painters were more esteemed than artists of equal merit in modern times; that what we should term gentlemen artists were frequent with them, (*apud Romanos quoque bonos mature huic arti con-*

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evince much theoretical and technical knowledge of the art, and display a distribution of its parts almost as minute, complete, and scientific, as the present state of it can boast.

With regard to colouring, the praises of the ancient authors chiefly relate to the style of it as exerted upon single figures or particular tints. It may therefore be doubted whether the ancients were possessed of the art of distributing their colours through the whole of a picture, so as to produce an harmony and general tone of colouring similar to that which we admire in the Lombard and Flemish schools. The present remains of ancient paintings do not appear to warrant any such conclusions; but being undoubtedly the works of inferior hands, their authority is very small when alleged against the general or particular merit of the ancient artists. The following extracts will be sufficient to evince, that the ancients did attend to this technical branch of colouring.

Indeed the modern technical expressions appear borrowed from the following passage of Pliny, which may be regarded as decisive on the subject. *Tandem sese ars ipsa distinxit, et invenit lumen atque umbras, differentia colorum alterna vice sese excitante. Dein adjectus est splendor; alius hic quam lumen; quem quia inter hoc et umbram esset, appellaverunt tonon. Commixturas vero colorum et transitus, harmogen.* The *lumen atque umbras* of this passage might have been regarded as merely descriptive of the light and shade necessary to relieve single figures, if it were not for the subsequent definition of *tone*. The *harmogen* of Pliny means the *handling* or skilful blending and softening colours into one another, rather than what we now call *harmony*.

Lucian†, in his fine description of that spirited painting by Zeuxis of the male and female centaurs, after relating the treatment of the subject itself, proceeds to notice the technical execution of the picture; and he praises particularly the truth and delicacy of the drawing, the perfect blending of the colours, the skilful shading, the scientific preservation of size and magnitude, and the equality and harmony of the proportions throughout the whole piece.

Painters, says Plutarch, increase the effect of the light and splendid parts of a picture by the neighbourhood of dark tints and shades. And Maximus Tyrius observes, that bright and vivid colours are always pleasant to the eye; but this pleasure is always lessened if you omit to accompany them with somewhat dark and gloomy. These passages seem to imply a knowledge of the use of cold and dark tints even where a brilliancy of tone is required. The best among the ancient painters, however, seem to have preferred a chaste and sober style of colouring to the gaudiness and fluter of the later artists.

Upon the whole, therefore, with respect to colouring as employed upon single figures, as the ancients were fully as competent to judge of excellence herein as the moderns; as the expressions of the ancient connoisseurs are very warm in praise of the colouring of many of their painters; as they appear also to have attended very much to the art of colouring; and, moreover, as probable evidence can be adduced that they attended to miniature painting—a considerable degree of merit may be allowed them in the use of the colours they possessed.

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Chiaro-scuro, or the art of placing and proportioning light and shade in such a manner as to produce a pleasing effect, independently of any other circumstance connected with the picture, has been commonly deemed a characteristic difference between the knowledge of ancient and modern painters. On this subject the works of the ancients now remaining give little or no information; hence Sir Joshua Reynolds observes, "that this, which makes so considerable a part of the modern art, was to them totally unknown. If the great painters had possessed this excellence, some portion of it would have infallibly been diffused, and have been discovered, in the works of the inferior rank of artists which have come down to us, and which may be considered as on the same rank with the paintings that ornament our public gardens." But the accounts of the places where these paintings have been found, make it evident that they were thus ornamented at a very inconsiderable expence. The generality of them consist of single figures; some of them of two or three figures, generally relieved by an uniform ground; and, except in a few instances, evidently designed as mere reliefs to a compartment, and answering, as near as may be, the stuccoed ornaments in our modern rooms; nor do any of them seem the works of artists equal in their day to those at present employed on the painted ceilings of private houses.

The Abbé du Bos maintains, on the other hand, that what Pliny and other ancient writers say concerning the chiaro-obscuro, and the delightful distribution of light and shade, is altogether decisive; and that their writings are full of so many probable circumstances, that it cannot be denied that the ancients at least equalled the most celebrated of the moderns in this part of the art.

On the examination of the greater part of the passages from antiquity, it is evident that they may relate to the light and shade of single figures, without involving what is now called the science of the chiaro-obscuro. The passage of Pliny, however, already quoted, and several others, go very near to prove that this branch of painting was understood among the ancients. The dark, the light, and mezzotint are evidently and accurately described in that passage.

Equally strong is that expression in Quintilian: *Zeuxis luminum umbrarumque rationem invenisse traditur*. This cannot well be otherwise translated than by the science of light and shade.

That some technical knowledge of the effect producible by masses of light and shade was possessed by the ancients, appears indubitable from the passages adduced: to what extent it was carried cannot now be ascertained. In all probability they were much inferior in this respect to the moderns; otherwise, although much science of this kind could hardly be expected from the trifling performances that remain, much more would have occurred on the subject, it would have been more largely dwelt on, and more precisely expressed among the observations of ancient authors on the best paintings of the ancient masters.

Neither is there sufficient evidence that the ancients were eminent in that important branch of the composition of a picture, which consists in distributing the figures and objects in groups or masses. There are few

examples of this difficult branch of the art among the remaining antiquities; and indeed, from the paucity of the figures introduced in the generality of these ancient paintings, there is little room to expect them. But what makes it still more doubtful whether the ancients attained any degree of eminence in grouping is, that among the many paintings of these great masters enumerated by Pliny, Lucian, or Philostratus, there is none of them praised for this species of excellence. This, however, it must be confessed, may as well arise from want of knowledge in the writer as of skill in the artist; for in a picture found in Herculaneum, which represents in all probability the education of Achilles, the figure of an old man holding a child on his knees, together with that of a woman behind him, form a very agreeable group. A work of the same collection, painted in one colour on marble, consists of five figures grouped very much after the modern idea, if it were not that three of the heads are at the same height. It is extremely probable, that this morsel had been the copy of a picture finished in the purest times of the art. But although it were proved that the ancients did not attempt grouping their figures, it is still uncertain whether this might not arise from their peculiar and perhaps excellent taste in the arts. Wishing to enjoy in the fullest manner their painted figures as they enjoyed the aspect of a statue, they took care that every figure should be detached from another in the same picture, which permitted them to give their objects more relief, and to render them more distinct to the eye of a distant spectator.

We are not therefore to conclude, that they were entirely ignorant of grouping, on the one hand; or that they declined the execution of it from want of skill, on the other. Indeed it actually appears to have been technically attended to by them, whatever might be their comparative excellence in it; for Apelles is expressly asserted by Pliny to have been inferior to Melanthius in composition (*de dispositione*); and one of their paintings, mentioned by the same author, is said to have contained one hundred figures; but this unwieldy number must have been offensive, if they were not grouped with some skill.

From the connection between the sister arts of poetry, painting, and sculpture, and the admirable performances of the ancients in the other two departments of the fine arts, it is reasonable to conclude, that the ancient painters were not deficient in invention. Many instances, were it necessary, might be collected in support of their well-founded claim to this branch of the art; but it will be sufficient to observe, that as invention is rather a natural endowment than an acquired talent, and as the ancients universally seem to be at least equal to the moderns in the gifts of genius and good sense, we cannot but admit, on their part, an equality with ourselves so far as invention is concerned.

Very nearly connected with the subject of invention is that of the *costume*; by which is meant an attention to probability with respect to times, places, objects, persons, and circumstances in the transaction represented.

The ancient paintings now remaining, so far from exhibiting any proofs of attention to this important branch of the art, are full of gross violations of probability,

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bability, and representations of impossible connection. But very little stress is to be laid on these instances; first, because they are evidently the performances of artists of no reputation; secondly, because none of them to which this objection can be made are regular representations of any person or transaction; and thirdly, because, as they were (for the most part) manifestly intended as ornaments to apartments, the taste of the owner, and not of the artist, would of course be chiefly consulted. Nothing, however, can be more clear than that the ancients required an attention to probability in the works of their artists; and from the manner in which their writers express themselves on the subject (not so much recommending the practice of it as taking it for granted), we may reasonably conclude, that their best painters were seldom guilty of any gross violation of the costume. *Sint ficta simillima veris* was an apophthegm generally known, and when known must have been universally admitted.

The principles of the costume are well expressed and illustrated by Horace in the first lines of his Art of Poetry; and Vitruvius, lib. vii. chap. 5. says, that no pictures can be approved of which have not a resemblance to truth and nature. Whether the ancient painters put in practice a greater share of good sense with respect to the costume than the moderns, cannot now be accurately determined; the advantage seems to be in favour of the former: for, as we shall have occasion more particularly to observe afterwards, the most celebrated of modern painters from Raphael to Sir Joshua Reynolds have been guilty of such flagrant breaches of probability, as would appear astonishing to those who are not in the habit of expecting them.

It has been doubted whether the ancients were acquainted with the science of *perspective*: and if the remains of ancient painting were alone to decide the question, it must be determined against them; for the works of the ancient painters now in possession of the moderns afford no proof of attention to the rules of perspective equal to the performance of a modern sign-painter. The picture of the sacrifice among the Herculanean antiquities, and the fourth of the prints which Bellori has published and described, taken from the paintings in the sepulchre of the Nasonii, are barely tolerable; but the other landscapes (almost the only remaining antique paintings which admit of perspective) are grossly defective in this particular; so much so indeed, that considering the late period when landscape-painting was introduced among the ancients, together with this manifest imperfection in point of perspective of such as are yet extant, we cannot help suspecting the inferiority of the ancients in this respect. In perspective, as in the *chiaro-scuro*, had good practice been common, some traces would have been discovered in the works of their lowest artists.

And yet some general knowledge of the principles, and some degree of attention to the practice, of perspective, cannot well be denied to the ancients. They were good mathematicians, they were excellent architects, and some of them are celebrated for their skill in scene-painting. Geminus the Rhodian, contemporary with Cicero, was the author of an express treatise on perspective; and Euclid, Heliodorus, Larissæus, Agatharcus, wrote also on the same subject. It is well known, besides, that the ancients practised the

art of painting in perspective on walls in the same way that it is now done by the moderns; and Pliny (Nat. Hist. lib. xxxv. c. 4.) says, that one of the walls of the theatre of Claudius Pulcher, representing a roof covered with tiles, was finished in so masterly a manner, that the rooks, birds of no small sagacity, taking it for a real roof, attempted to light upon it. We are likewise told, that a dog was deceived to such a degree, by certain steps in a perspective of Dantos, that expecting to find a free passage, he made up to them in full speed, and dashed out his brains. But what is still more, Vitruvius tells us in express terms by whom and at what time this art was invented. It was first practised by Agatharcus, a contemporary of Æschylus, in the theatre of Athens; and afterwards reduced to certain principles, and treated as a science, by Anaxagoras and Democritus; thus faring like other arts which existed in practice before they appeared in theory.

Portrait-painting seems to have been a principal employment of the first artist whom the ancients have to boast of, since Alexander is said to have permitted no painter but Apelles, and no sculptor but Phidias, to take his likenesses. Pliny particularizes several instances of Apelles as a portrait-painter.

In the drawing and colouring of single figures, to which the ancients paid peculiar attention, they must be allowed to be equal, if not superior, to the moderns. That spirit and animation, ease and dignity, were common to the performances of ancient artists, the ancient statues and paintings still remaining most evidently evince; and as they possessed, therefore, all the requisites to excel in portrait-painting, a branch of the art at all times much in request among them, there is good reason to infer, in favour of the ancients, at least an equality with the moderns in this respect.

On the whole, all the principal parts of the art, as purity of design, and beauty and expression in the forms, were not only to be found in the ancient statues, but were actually the foundation of excellence in modern painting; and hence we may conclude, that their painters, formed on the same models, and very often the same men who excelled in sculpture, were not inferior in those branches of the art. But with regard to the inferior parts, the allurements of colouring, the ingenuity of the *claro-obscuro*, the splendor of composition, the art of grouping figures, and the nice *handling* of the pencil, the moderns are superior to those ancient painters who have most deserved the notice of their contemporary writers. It is still to be observed, however, that the progress of the arts among the ancients, from the principal parts to the more splendid, was somewhat similar to that among the moderns; and as the painters of the first rank were more immediately the objects of criticism and delight to authors of genius, it is impossible at this distance of time to state any accurate comparison between the ancients and moderns in what may be termed the decay of the art. This is particularly the case with regard to colours, there being in ancient as well as in modern times two epochs; the one comprehending Polygnotus and his immediate successors, and the other the painters both of Greece and Rome after the art began to decay. The colouring of Polygnotus was hard, and his manner had something of wild-
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ness; but his design was in the highest style of perfection. In the succeeding ages the colouring was more varied, more brilliant, more harmonious, and the handling more agreeable; but the design was less elegant and exact. And the true connoisseurs continued to prefer the works of the ancient school, in the same manner that the best writers in our times prefer the works of the Roman and Venetian masters to the

more brilliant pictures of their successors. From this statement of facts it is abundantly evident, that from the ancient authors we can form some comparison between the best ancient and modern painters in those things which are most excellent in the art; while in the inferior parts, from the silence of authors, and the loss of paintings, we have no grounds upon which a comparison can be accurately made.

Anatomy.

PART I. Principles of the ART, and the Order of the Artist's STUDIES.

WE have joined these together, because they are like cause and effect; and comprehend both on what parts in the execution of the art the painter is to employ his chief attention, and also the manner in which he is to employ it. We shall not therefore be confined to the dry and abstract, and as it were unembodied principles, but connect them with the useful and agreeable branches of the art, in that order in which it appears to us they should be studied.

SECT. I. Of Anatomy.

To ask if the study of anatomy is requisite to a painter, is the same thing as to ask if, in order to learn any science, a man must first make himself acquainted with the principles of it. It would be an useless waste of time to cite, in confirmation of this truth, the authorities of the ancient masters, and the most celebrated schools. A man, who is unacquainted with the form and construction of the several bones which support and govern the human frame, and does not know in what manner the muscles moving these bones are fixed to them, can make nothing of what appears of them thro' the integuments with which they are covered; and which appearance is, however, the noblest object of the pencil. It is impossible for a painter to copy faithfully what he sees, unless he thoroughly understand it. Let him employ ever so much time and study in the attempt, it cannot but be attended with many and great mistakes: just as it must happen to a man, who undertakes to copy something in a language which he does not understand; or to translate into his own, what has been written in another, upon a subject with which he is not acquainted.

It seldom happens, that nothing more is required of a painter than to copy exactly an object which he has before him. In still and very languid attitudes, in which every member is to appear motionless and dead, a living model may, no doubt, yield for a long time a faithful image, and prove an useful pattern to him. But in regard to gestures any way sudden, motions any way violent, or those momentary attitudes which it is more frequently the painter's business to express, the case is quite different. In these a living model can hold but an instant or two; it soon grows languid, and settles into a fixed attitude, which is produced by an instantaneous concurrence of the animal spirits. If, therefore, a painter possess not so thoroughly all the principles of anatomy, as to be at all times able to have immediate recourse to them; if he know not the various manners in which the several parts of the human body play, according to their various positions; living models, far from proving an useful pattern to him, will

rather tend to lead him astray, and make him lose sight of truth and nature, by exhibiting the very reverse of what is required, or at least exhibiting it in a very faint and imperfect manner. In living models, we often behold those parts slow, which should be very quick; those cold and torpid, which should have the greatest share of life and spirit in them.

Nor is it, as some may be apt to imagine, merely to represent athletic and vigorous bodies, in which the parts are most bold and determined, that anatomy is requisite: it should be understood, to represent persons of the most delicate frame and condition, even women and children, whose members are smoothest and roundest, though the parts made known by it are not to be strongly expressed in such objects; just as logic is equally requisite under the polished insinuations of the orator and the rough arguments of the philosopher.

But it is needless to spend much time in proving, that a painter should be acquainted with anatomy; or in showing, how far his acquaintance with it should extend. For instance, it is unnecessary for him to enter into the different systems of the nerves, blood-vessels, bowels, and the like; parts which are removed from the sight, and which therefore may be left to the surgeon and the physician, as being a guide in the operations of the former and in the prescriptions of the latter. It is enough for the painter, to be acquainted with the skeleton; in other words, with the figure and connection of the bones, which are, in a manner, the pillars and props of the human body; the origin, progress, and shape, of the muscles, which cover these bones; as also the different degrees in which nature has clothed the muscles with fat, for this substance lies thicker upon them in some places than in others. Above all, he should know in what manner the muscles effect the various motions and gestures of the body. A muscle is composed of two tendinous and slender parts, one called the *head*, the other the *tail*, both terminating at the bones; and of an intermediate part, called the *belly*. The action of a muscle consists in an extraordinary swelling of this intermediate part, while the head remains at rest, so as to bring the tail nearer the head, and consequently the part, to which the tail of the muscle is fixed, nearer to that part into which the head is inserted.

There are many motions, to effect which several of the muscles (for this reason called *co-operating muscles*) must swell and operate together, while those calculated to effect a contrary motion (and therefore called *antagonist muscles*) appear soft and flaccid. Thus, for example, the biceps and the brachialis internus labour

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Michael Angelo intended to give the public a complete treatise upon this subject; and it is no small misfortune, that he never accomplished so useful a design. This great man, having observed, as we are told in his life by Condivi, that Albert Durer was deficient on the subject, as treating only of the various measures and forms of bodies, without saying a word of their attitudes and gestures, though things of much greater importance, resolved to compose a theory, founded upon his long practice, for the service of all future painters and statuaries. And, certainly, no one could be better qualified to give anatomical precepts for that purpose, than he who, in competition with Da Vinci, designed that famous cartoon of naked bodies, which was studied by Raphael himself, and afterwards obtained the approbation of the Vatican, the greatest school of the art we are now treating of.

The want of Michael Angelo's precepts may, in some measure, be supplied by other books written on the same subject by Moro, Cesio, and Tortebat; and lately by Bouchierdon, one of the most famous statuaries in France. But nothing can be of equal service to a young painter, with the lessons of some able dissector; under whom, in a few months, he may make himself master of every branch of anatomy which he need to be acquainted with. A course of osteology is of no great length; and of the infinite number of muscles discovered by curious myologists, there are not above 80 or 90, with which nature sensibly operates all those motions which he can ever have occasion to imitate or express. These, indeed, he should closely study, these he should carefully store up in his memory, so as never to be at the least loss for their proper figure, situation, office, and motion.

But there is another thing, besides the dissection of dead bodies, by which a young painter may profit greatly; and that is anatomical casts. Of these we have numbers by several authors; nay some which pass under the name of *Buonarroti* himself. But there is one in which, above all the rest, the parts are most distinctly and lively expressed. This is the performance of Hercules Lelli, who has perhaps gone greater lengths in this kind of study than any other master. We have, besides, by the same able hand, some casts of particular parts of the human body, so curiously coloured for the use of young painters, as to represent these parts exactly as they appear on removing the integuments; and thus, by the difference in their colour as well as configuration, render the tendinous and the fleshy parts, the belly and the extremities, of every muscle surprisingly distinct; at the same time that, by the various direction of the fibres, the motion and play of these muscles become very obvious; a work of the greatest use, and never enough to be commended! Perhaps, indeed, it would be an

Anatomy improvement, to give the muscles various tints; those muscles especially which the pupil might be apt to mistake for others. For example, though the *malloides*, the *deltoides*, the *sartorius*, the *fascia lata*, the *gasterocnemii*, are, of themselves, sufficiently distinguishable, it is not so with regard to the muscles of the arm and of the back, the right muscles of the belly, and some others, which, either on account of the many parts into which they branch, or of their being interwoven one with another, do not so clearly and fairly present themselves to the eye. But let the cause of confusion to young beginners be what it will, it may be effectually removed, by giving, as already hinted, different colours to the different muscles, and illuminating anatomical figures; in the same manner that maps are coloured, in order to enable us readily to distinguish the several provinces of every kingdom, and the several dominions of every prince.

The better to understand the general effect, and remember the number, situation, and play of the muscles, it will be proper to compare, now and then, the anatomical casts, and even the dead body itself, with the living body covered with its fat and skin; and above all things, with the Greek statues still in being. It was the peculiar happiness of the Greeks, to be able to characterize and express the several parts of the human body much better than we can pretend to do; and this, on account of their particular application to the study of naked figures, especially the fine living ones which they had continually before their eyes. It is well known, that the muscles most used are likewise the most protuberant and conspicuous; such as, in those who dance much, the muscles of the legs; and in boatmen, the muscles of the back and arms. But the bodies of the Grecian youth, by means of their constant exertion of them in all the gymnastic sports, were so thoroughly exercised, as to supply the statuary with much more perfect models than ours can pretend to be.

There are a great many exercises, which a young painter should go through while engaged in the study of anatomy, in order to make himself more thoroughly master of that science. For example: The thighs of any figure, a *Laocoon* for instance, being given, he should add to them legs suitable to that state in which the muscles of the thighs are represented, that is, the muscles which serve to bend and extend the legs, and to effectuate in them such a precise position and no other. To the simple contour of an anatome, or a statue, he should add the parts included by it, and give it a system of muscles conformable to the quality of that particular contour; for every contour denotes some one certain attitude, motion, exertion, and no other. Exercises of this kind would soon establish him in the most fundamental principles of painting, especially if he had an opportunity of comparing his drawings with the statue or cast from which the parts given him to work upon were taken, and thereby discovering and correcting his mistakes. This method is very like that used by those who teach the Latin tongue; when, having given their scholars a passage of *Livy* or *Cæsar* already translated into their mother-tongue, to translate back into Latin, they make them compare their work with the original text.

SECT. II. *Of Perspective.*

THE study of perspective should go hand in hand with that of anatomy, as not less fundamental and necessary. In fact, the contour of an object drawn upon paper or canvas, represents nothing more than such an intersection of the visual rays sent from the extremities of it to the eye, as would arise on a glass put in the place of the paper or canvas. Now, the situation of an object at the other side of a glass being given, the delineation of it on the glass itself depends entirely on the situation of the eye on this side of the glass; that is to say, on the rules of perspective: a science which, contrary to the opinion of most people, extends much farther than the painting of scenes, floors, and what generally goes under the name of *quadratura*. Perspective, according to that great master da Vinci, is to be considered as the reins and rudder of painting. It teaches in what proportion the parts fly from, and lessen upon, the eye; how figures are to be marshalled upon a plain surface, and fore-shortened. It contains, in short, the whole rationale of design.

Such are the terms which the masters best grounded in their profession have employed to define and commend perspective: so far were they from calling it a *fallacious art*, and an *insidious guide*; as some amongst the moderns have not blushed to do, insisting that it is to be followed no longer than it keeps the high road, or leads by easy and pleasant paths. But these writers plainly show, that they are equally ignorant of the nature of perspective, which, founded as it is on geometrical principles, can never lead its votaries astray; and of the nature of their art, which, without the assistance of perspective, cannot, in rigour, expect to make any progress, nay, not so much as to delineate a simple contour.

When a painter has formed a scene in his mind, and supposed, as it is customary, that the capital figures of this scene lie close, or almost close, to the back of his canvas, he is, in the next place, to fix upon some point on this side of the canvas, from which he would choose his piece should be seen. But in choosing this point, which is called the *point of sight*, regard should be had to its situation to the right or left of the middle of the canvas: but, above all things, to its distance and its height with respect to the lower edge of the canvas; which edge is called the *base line*, and is parallel with the horizontal line that passes through the eye. For by assuming the point of sight, and consequently the horizontal line, too low, the planes upon which the figures stand will appear a great deal too shallow; as, by assuming it too high, they will appear too steep, so as to render the piece far less light and airy than it ought to be. In like manner, if the point of sight is taken at too great a distance from the canvas, the figures will not admit of degradation enough to be seen with sufficient distinctness; and if taken too near it, the degradation will be too quick and precipitate to have an agreeable effect. Thus, then, it appears, that no small attention is requisite in the choice of this point.

When a picture is to be placed on high, the point of sight should be assumed low, and *vice versa*; in or-

der that the horizontal line of the picture may be, as near as possible, in the same horizontal plane with that of the spectator; for this disposition has an amazing effect. When a picture is to be placed very high, as, amongst many others, that of the Purification by Paolo Veronese, engraved by le Fevre, it will be proper to assume the point of sight so low, that it may lie quite under the picture, no part of whose ground is, in that case, to be visible; for, were the point of sight to be taken above the picture, the horizontal ground of it would appear sloping to the eye, and both figures and buildings as ready to tumble head foremost. It is true, indeed, that there is seldom any necessity for such extraordinary exactness; and that, unless in some particular cases, the point of sight had better be rather high than low: the reason of which is, that, as we are more accustomed to behold people on the same plane with ourselves, than either higher or lower, the figures of a piece must strike us most when standing on a plane nearly level with that upon which we ourselves stand. To this it may be added, that by placing the eye low, and greatly shortening the plane, the heels of the back figures will seem to bear against the heads of the foremost, so as to render the distance between them far less perceptible than otherwise it would be.

The point of sight being fixed upon, according to the situation in which the picture is to be placed, the point of distance is next to be determined. In doing this, a painter should carefully attend to three things: first, that the spectator may be able to take in, at one glance, the whole and every part of the composition; secondly, that he may see it distinctly; and thirdly, that the degradation of the figures and other objects of the picture be sufficiently sensible. It would take up too much time to lay down certain and precise rules for doing all this, considering the great variety in the sizes and shapes of pictures; for which reason we must leave a great deal to the discretion of the painter.

But there is a point still remaining, which will not admit of the least latitude. This is, the delineation of the picture, when once the point of sight has been fixed upon. The figures of a picture are to be considered as so many columns erected on different spots of the same plane; and the painter must not think of designing any thing, till he has laid down, in perspective, all those columns which are to enter his composition, with the most scrupulous exactness. By proceeding in this manner, he may not only be sure of not committing any mistake in the diminution of his figures according to their different distances, but may flatter himself with the thoughts of treading in the steps of the greatest masters. It is to the punctual observance of these laws, that we are to attribute the grand effect of some paintings by Carpazio and Mantegna, so careless in other respects; whereas a single fault against them is often sufficient entirely to spoil the works of a Guido, in spite of the sublimity and beauty of his superior style.

Now, as the demonstration of the rules of perspective depends on the doctrine of proportions, on the properties of similar triangles, and on the intersection of planes, it will be proper to put an abridgement of Euclid into the hands of the young painter, that he may

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may understand these rules fundamentally, and not stand confined to a blind practice of them: but, then, there is nothing in this author relative to the art of painting, which may not be easily acquired in a few months. For, as it would be of no use to a painter to launch out into the anatomical depths of a Monro or an Albinus, it would be equally superfluous to perplex himself with the intricacies of the higher geometry with a Taylor, who has handled perspective with that rich profoundness, which we cannot help thinking does a great deal more honour to a mathematician, than it can possibly bring advantage to a simple artist.

But though a much longer time were requisite to become a perfect master of perspective, a painter, surely, ought not to grudge it; as no time can be too long to acquire that knowledge, without which he cannot possibly expect to succeed. Nay, we may boldly affirm, that the shortest road in every art is that which leads through theory to practice. From theory arises that great facility, by means of which a man advances the quicker, in proportion as he is surer of not taking a wrong step: whilst those, who are not grounded in the science, labour on in perpetual doubt; obliged, as a certain author expresses it, to feel out their way with a pencil, just as the blind, with their sticks, feel for the streets and turnings, with which they are not acquainted.

As practice, therefore, ought in every thing to be built upon principle, the study of Optics, as far as it is requisite to determine the degree in which objects are to be illuminated or shaded, should proceed hand in hand with that of perspective: And this, in order that the shades, cast by figures upon the planes on which they stand, may fall properly, and be neither too strong nor too light; in a word, that those most beautiful effects of the chiaro-scuro may run no risk of ever receiving the lie from truth, which sooner or later discovers itself to every eye.

SECT. III. Of Symmetry.

THE study of symmetry, it is obvious, should immediately follow that of anatomy: for it would avail us little to be acquainted with the different parts of the human body, and their several offices, were we at the same time ignorant of the order and proportion of those parts in regard to the whole in general, and to each other in particular. The Greek statuaries distinguished themselves above all others, as much by the just symmetry of their members, as by their skill in anatomy; but Polycletes surpassed them all by a statue, called the *Rule*, from which, as from a most accurate pattern, other artists might take measures for every part of the human body. These measures, to say nothing of the books which treat professedly of them, may now be derived from the Apollo of Belvedere, the Laocoon, the Venus of Medici, the Faunus, and particularly the Antinous, which last was the rule of the learned Poussin.

It is the general opinion of painters, that the ancients were not as happy in representing the bodies of children, as they are allowed to have been in representing those of women and men; especially those of their gods; in which they excelled to such a degree,

that with these gods were often worshipped the artists who had carved them. Yet the Venus of Gnidos by Praxiteles was not more famous than her Cupid, on whose account alone people flocked to Thespiae §. To § *Cic. in Verrem, de signis.* Strabo, lib. ix. Plin. Nat. Hist. lib. xxxvi. c. 5. part that softness and effeminacy which Fiammingo has since contrived to give them, by representing their cheeks, hands, and feet, swelled, their heads large, and with scarce any belly. But such critics seem to forget, that these first sketches of nature very seldom come in the painter's way, and that this pure and delicate state has not in its form even the least glimmering of perfection. The ancients never undertook to represent children less than four or five years old; at which age the superfluous humours of the body being in some measure digested, their members begin to assume such a contour and proportion as may serve to point out what they are afterwards likely to be. This observation is confirmed by the children which we meet with in ancient basso-relievos and paintings: for they are all doing one thing or another; like those most beautiful little Cupids in a picture at Venice, who are playing with the arms of Mars, and lifting up the ponderous sword of that deity; or that little urchin in the Danaë of Caracci, who empties a quiver of its arrows in order to fill it with the golden shower. Now, what can be a greater blunder in point of costume, than to attribute actions, which require some degree of strength and judgment, to infancy, to that raw and tender age so totally unable to govern and support itself?

Let a young painter consider the Greek statues ever so often, of whatever character or age they may be represented, it is impossible he should ever consider them without discovering new beauties in them. It is therefore impossible he should copy them too often, according to that judicious motto placed by Maratti on his print called *The school*. This truth was acknowledged by Rubens himself; for though, like one bred, as he was, in the foggy climate of the Low Countries, he generally painted from the life; in some of his works he copied the ancients; nay, he wrote a treatise on the excellency of the ancient statues, and on the duty of a painter to study and imitate them. As to the satirical print, or rather pasquinade, of the great Titian, in which he has represented a parcel of young monkeys aping the group of Laocoon and his sons; he intended nothing more by it than to lash the dulness and poverty of those artists, who cannot so much as draw a figure without having a statue before them as a model.

In fact, reason requires, that an artist should be so much master of his art, as seldom to stand in need of a pattern. To what other purpose is he to sweat and toil from his infancy, and spend so many days and nights in studying and copying the best models; especially the finest faces of antiquity, which we are still possessed of; such as the two Niobes, mother and daughter; the Ariadne, the Alexander, the young Nero, the Silenus, the Nile: and likewise the finest figures; for instance, the Apollo, the Gladiator, the Venus, and others; all which (as was said of Pietro Festa), he should have, as it were, perfectly by heart? With a stock of excellencies like these, treasured up in his memory, he may one day hope to produce something

Plinii
Nat. Hist.
lib. xxxiv.
c. 8.

Symmetry. thing of his own without a model; form a right judgement of those natural beauties which fall in his way; and, when occasion offers, avail himself properly of them.

It is very injudicious to send boys to an academy to draw after naked figures, before they have imbibed a proper relish for beautiful proportions, and have been well-grounded in the true principles of symmetry. They should first learn, by studying the precious remains of antiquity, to improve upon life; and discern where a natural figure is faulty through stiffness in the members, or clumsiness in the trunk, or in any other respect; so as to be able to correct the faulty part, and reduce it to its proper bounds. Painting, in this branch, is, like medicine, the art of taking away and adding.

It must not, however, be dissembled, that the methods hitherto laid down are attended with some danger: for by too slavish an attention to statues, the young painter may contract a hard and dry manner; and by studying anatomies too servilely, a habit of representing living bodies as stripped of their skin: for, after all, there is nothing but what is natural, that, besides a certain peculiar grace and liveliness, possesses that simplicity, ease, and softness, which is not to be expected in the works of art, or even in those of nature when deprived of life. Poussin himself has now and then given into one of these extremes, and Michael Angelo very often into the other: but from this we can only infer, that even the greatest men are not infallible. It is, in short, to be considered as one instance, among a thousand, of the ill use those are wont to make of the best things, who do not know how to temper and qualify them properly with their contraries.

* Poussin, in his *Life* by Bellori.

But no such danger can arise to a young painter from confining himself for a long time to mere design, so as not to attempt colouring till he has made himself master of that branch. If, according to a great master*, colours in painting are in regard to the eye what numbers in poetry are in regard to the ear, so many charms to allure and captivate that sense; may we not affirm, that design is in the same art what propriety of language is in writing, and a just utterance of sounds in music? Whatever some people may think, a picture designed according to the rules of perspective and the principles of anatomy, will ever be held in higher esteem by good judges, than a picture ill designed, let it be ever so well coloured. Hannibal Caracci set so great a value upon the art of contour, that, according to some expressions of his which have reached us, he considered almost every thing else as nothing in comparison with it. And this his judgement may be justified, by considering, that nature, though she forms men of various colours and complexions, never operates in the motions contrary to the mechanical principles of anatomy, nor, in exhibiting these motions to the eye, against the geometrical laws of perspective: a plain proof, that, in point of design, no mistake is to be deemed trifling. Hence we are enabled to feel all the weight of those words in which Michael Angelo, after he considered a picture drawn by a prince of the Venetian school, addressed Vasari: "What a pity it is," said he, "that this man did not set out by studying design!" As the energy of nature

shines most in the smallest subjects, so the energy of Imitation. art shines most in imitating them.

SECT. IV. *Of Imitation.*

WHEN you consider art as the imitation of nature (says Mengs), it is not to be understood that nature which is the object, is more perfect than art which imitates it. Nature, it is confessed, offers some views of which the imitation must for ever remain imperfect, as in the instance of the *claro-obscuro*; but, on the other hand, in every thing relative to beauty of form, imitation may even surpass nature. Nature, in her productions, is subject to many accidents. Art, labouring on passive and obedient materials, renders perfect the objects of its creation, chooses every thing in nature the most excellent, and collects the different parts and the different beauties of many individual into one whole. It is seldom that we find in the same man greatness of soul and the due proportions of body, vigour, suppleness, firmness, and agility, joined together. Art constantly represents what is rarely or never to be met with in human nature; regularity in the outlines, grandeur in the forms, grace in the attitudes, beauty in the members, force in the breast, agility in the limbs, address in the arms, frankness in the forehead, spirit in the eyes, and affability over the whole countenance. Let an artist give force and expression to all the parts of his subject, let him vary this force and expression as different circumstances make it necessary, and he will soon perceive that art may surpass nature. But although this be granted, the artist is not to imagine that art is *actually* arrived at this supreme degree of perfection, and can proceed no farther. The moderns seem never to have perceived the tract pointed out by the ancient Greeks: for, since the revival of painting, the true and the agreeable, instead of the beautified, have been the objects of cultivation. Still, however, imitation is the first part of the art of painting, though not the most excellent or beautiful. It is a necessary step in the progress which leads forward to greater perfection.

A painter ought attentively to consider, compare together, and weigh in the balance of reason and truth, all the different styles of the great masters; but he ought likewise carefully to guard against too great a fondness for any one of them in particular that he may think proper to adopt; otherwise, to use the expression of a first-rate master*, instead of the child, he would become the grand-child of nature.

* *Da Vinci* on *Painting*.

Besides, his imitation must be of generals, and not of particulars. Whatever a young painter's natural disposition may be, whether to paint boldly and freely like Tintoret and Rubens, or to labour his works like Titian or Da Vinci, let him follow it. This kind of imitation is very commendable. It is thus that Dante, at the same time that he carefully avoided adopting the particular expressions of Virgil, endeavoured to seize his bold and free manner, and at last caught from him that elegance of style which has done him so much honour.

As to the rest, nothing should hinder an able master from making use now and then of any antique, or even modern figure, which he may find his account in employing. Sanzio, in a *St Paul at Lистра*, scrupled

not

Imitation.

not to avail himself of an ancient sacrifice in basso-relievo; nor did Buonarroti himself disdain to use, in his paintings of the Sextine chapel, a figure taken from that famous cornelian which tradition tells us he wore on his fingers, and which was lately in the possession of the most Christian king. Men like these avail themselves of the productions of others in such a manner as to make us apply to them, what La Bruyere said of Despreaux, that one would imagine the thoughts of other men had been of his own creation.

In general, a painter should have his eye constantly fixed on nature, that inexhaustible and varied source of every kind of beauty; and should study to imitate her in her most singular effects. As beauty, scattered over the whole universe, shines brighter in some objects than in others, he should never be without his little book and crayon, in order to make drawings of every beautiful or uncommon object that may happen to present itself; and take sketches of every fine building, every situation, every effect of light, every flight of clouds, every flow of drapery, every attitude, every expression of the passions, that may happen to strike him. He may afterwards employ these things as occasion offer; and in the mean time will have the advantage of acquiring a grand taste.

It is by carefully studying the best masters, and imitating nature, that a painter arrives at the style of perfection which the Italians call *gusto grande*, the French *le beau ideal*, and the English *the great style*.

"A mind (says Sir Joshua Reynolds), enriched by an assemblage of all the treasures of ancient and modern art, will be more elevated and fruitful in resources in proportion to the number of ideas which have been carefully collected and thoroughly digested.

"The addition of other mens judgement is so far from weakening, as is the opinion of many, our own, that it will fashion and consolidate those ideas of excellence which lay in their birth feeble, ill-shaped, and confused; but which are finished and put in order by the authority and practice of those, whose works may be said to have been consecrated by having stood the test of ages.

"When we speak of the habitual imitation and continued study of masters, it is not to be understood that I advise any endeavour to copy the exact peculiar colour and complexion of another man's mind; the success of such an attempt must always be like his who imitates exactly the air, manner, and gestures of him whom he admires. His model may be excellent, but he himself will be ridiculous; and this ridicule arises not from his having imitated, but from his not having chosen the right mode of imitation.

"It is a necessary warrantable pride to disdain to walk servilely behind any individual, however elevated his rank. The true and liberal ground of imitation is an open field, where, though he who precedes has had the advantage of starting before you, yet it is enough to pursue his course: you need not tread in his footsteps; and you certainly have a right to outstrip him if you can.

"Nor, whilst I recommend studying the art from artists, can I be supposed to mean that nature is to be neglected: I take this study in aid, and not in exclusion of the other. Nature is, and must be, the foun-

N° 256.

tain, which alone is inexhaustible; and from which all excellencies must originally flow.

"The great use of studying our predecessors is to open the mind, to shorten our labour, and to give us the result of the selection made by those great minds of what is grand or beautiful in nature: her rich stores are all spread out before us; but it is an art, and no easy art, to know how or what to choose, and how to attain and secure the object of our choice.

"Thus the highest beauty of form must be taken from nature; but it is an art of long deduction and great experience to know how to find it. I cannot avoid mentioning here an error which students are apt to fall into.

"He that is forming himself must look with great caution and wariness on those peculiarities or prominent parts which at first force themselves on view, and are the marks, or what is commonly called the manner, by which that individual artist is distinguished.

"Peculiar marks I hold to be generally, if not always, defects, however difficult it may be wholly to escape them.

"Peculiarities in the works of art are like those in the human figure; it is by them that we are cognizable and distinguished one from another; but they are always so many blemishes, which, however, both in the one case and in the other, cease to appear deformities to those who have them continually before their eyes. In the works of art, even the most enlightened mind, when warmed by beauties of the highest kind, will by degrees find a repugnance within him to acknowledge any defects; nay, his enthusiasm will carry him so far as to transform them into beauties and objects of imitation.

"It must be acknowledged, that a peculiarity of style, either from its novelty, or by seeming to proceed from a peculiar turn of mind, often escapes blame; on the contrary, it is sometimes striking and pleasing; but it is vain labour to endeavour to imitate it, because novelty and peculiarity being its only merit, when it ceases to be new, it ceases to have value.

"A manner, therefore, being a defect, and every painter, however excellent, having a manner, it seems to follow, that all kinds of faults as well as beauties may be learned under the sanction of the greatest authorities."

SECT V. Of Colouring.

COLOURING, though a subject greatly inferior to many others which the painter must study, is yet of sufficient importance to employ a considerable share of his attention; and to excel in it, he must be well acquainted with that part of optics which has the nature of light and colours for its object. Light, however simple and uncompounded it may appear, is nevertheless made up, as it were, of several distinct substances; and the number, and even dose, of these ingredients, has been happily discovered by the moderns. Every undivided ray, let it be ever so fine, is a little bundle of red, orange, yellow, green, azure, indigo, and violet rays, which, while combined, are not to be distinguished one from another, and form that kind of light called

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white;

Colouring.

Colouring.

*Trattato
della Pittura, c. 14.*

white; so that white is not a colour *per se*, as the learned Da Vinci† (so far, it seems, the precursor of Newton) expressly affirms, but an assemblage of colours. Now, these colours, which compose light, although immutable in themselves, and endued with various qualities, are continually, however, separating from each other in their reflection from and passage through other substances, and thus become manifest to the eye. Grass, for example, reflects only green rays, or rather reflects green rays in greater number than it does those of any other colour; one kind of wine transmits red rays, and another yellowish rays: and from this kind of separation arises that variety of colours with which nature has diversified her various productions. Man, too, has contrived to separate the rays of light by making a portion of the sun's beams pass through a glass prism; for after passing through it, they appear divided into seven pure and primitive colours, placed in succession one by the other, like so many colours on a painter's pallet.

Now, though Titian, Corregio, and Vandyke, have been excellent colourists, without knowing any thing of these physical subtleties, that is no reason why others should neglect them. For it cannot but be of great service to a painter to be well acquainted with the nature of what he is to imitate, and of those colours with which he is to give life and perfection to his designs; not to speak of the pleasure there is in being able to account truly and solidly for the various effects and appearances of light. From a due tempering, for example, and degrading, of the tints in a picture; from making colours partake of each other, according to the reflection of light from one object to another; there arises, in some measure, that sublime harmony which may be considered as the true music of the eye. And this harmony has its foundation in the genuine principles of optics. Now this could not happen in the system of those philosophers, who held, that colours did not originally exist in light, but were, on the contrary, nothing else than so many modifications which it underwent in being reflected from other substances, or in passing through them; thus subject to alterations without end, and every moment liable to perish. Were that the case, bodies could no more receive any hues one from another, nor this body partake of the colour of that, than scarlet, for example; because it has the power of changing into red all the rays of the sun or sky which immediately fall upon it, has the power of changing into red all the other rays reflected to it from a blue or any other colour in its neighbourhood. Whereas, allowing that colours are in their own nature immutable one into another, and that every body reflects, more or less, every sort of coloured rays, though those rays in the greatest number which are of the colour it exhibits, there must necessarily arise, in colours placed near one another, certain particular hues or temperaments of colour: nay, this influence of one colour upon another may be so far traced, that three or four bodies of different colours, and likewise the intenseness of the light falling upon each, being assigned, we may easily determine in what situations and how much they would tinge each other. We may thus, too, by the same principle of optics, account for several other things practised by painters; inasmuch that a person, who has carefully observed natural ef-

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fects with an eye directed by solid learning, shall be able to form general rules, where another can only distinguish particular cases.

But after all, the pictures of the best colourists are, it is universally allowed, the books in which a young painter must chiefly look for the rules of colouring; that is, of that branch of painting which contributes so much to express the beauty of objects, and is so requisite to represent them as what they really are. Giorgio and Titian seem to have discovered circumstances in nature which others have entirely overlooked; and the last in particular has been happy enough to express them with a pencil as delicate as his eye was quick and piercing. In his works we behold that sweetness of colouring which is produced by union; that beauty which is consistent with truth; and all the insensible transmutations, all the soft transitions, in a word, all the pleasing modulations, of tints and colours. When a young painter has, by close application, acquired from Titian, whom he can never sufficiently dwell upon, that art which, of all painters, he has best contrived to hide, he would do well to turn to Bassano and Paolo, on account of the beauty, boldness, and elegance of their touches. That richness, softness, and freshness of colouring, for which the Lombard school is so justly cried up, may likewise be of great service to him. Nor will he reap less benefit by studying the principles and practice of the Flemish school; which, chiefly by means of her varnishes, has contrived to give a most enchanting lustre and transparency to her colours.

But whatever pictures a young painter may choose to study the art of colouring upon, he must take great care that they are well preserved. There are very few pieces which have not suffered more or less by the length, not to say the injuries, of time; and perhaps that precious patina, which years alone can impart to paintings, is in some measure akin to that other kind which ages alone impart to medals; inasmuch as, by giving testimony to their antiquity, it renders them proportionably beautiful in the superstitious eyes of the learned. It must indeed be allowed, that if, on the one hand, this patina bestows, as it really does, an extraordinary degree of harmony upon the colours of a picture, and destroys, or at least greatly lessens, their original rawness, it, on the other hand, equally impairs the freshness and life of them. A piece seen many years after it has been painted, appears much as it would do, immediately after painting, behind a dull glass. It is no idle opinion, that Paolo Veronese, attentive above all things to the beauty of his colours, and what is called *strepito*, left entirely to time the care of harmonizing them perfectly, and (as we may say) mellowing them. But most of the old masters took that task upon themselves; and never exposed their works to the eyes of the public, until they had ripened and finished them with their own hands. And who can say whether the *Christ* of Moneta, or the *Nativity* of Bassano, have been more improved or injured (if we may so speak) by the touchings and retouchings of time, in the course of more than two centuries? It is indeed impossible to be determined. But the studious pupil may make himself ample amends for any injuries which his originals may have received from the hands of time, by turning to truth, and to Nature which never grows

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old, but constantly retains its primitive flower of youth, and was itself the model of the models before him. As soon, therefore, as a young painter has laid a proper foundation for good colouring, by studying the best masters, he should turn all his thoughts to truth and nature. And it would perhaps be well worth while to have, in the academies of painting, models for colouring as well as designing; that as from the one the pupils learn to give their due proportion to the several members and muscles, they may learn from the other to make their carnations rich and warm, and faithfully copy the different local hues which appear quite distinct in the different parts of a fine body. To illustrate still farther the use of such a model, let us suppose it placed in different lights; now in that of the sun, now in that of the sky, and now again in that of a lamp or candle; one time placed in the shade, and another in a reflected light. Hence the pupil may learn all the different effects of the complexion in different circumstances, whether the livid, the lucid, or transparent; and, above all, that variety of tints and half tints, occasioned in the colour of the skin by the epidermis having the bones immediately under it in some places, and in others a greater or less number of blood-vessels or quantity of fat. An artist who had long studied such a model, would run no risk of degrading the beauties of nature by any particularity of style, or of giving into that preposterous fulness and floridness of colour which is at present so much the taste. He would not feed his figures with roses, as an ancient painter of Greece shrewdly expressed it, but with good beef; a difference, which the learned eye of a modern writer could perceive between the colouring of Barocci and that of Titian. To practise in that manner, is, according to a great master, no better than inuring one's self to the commission of blunders. What statues are in design, nature is in colouring; the fountain-head of that perfection to which every artist, ambitious to excel, should constantly aspire: and accordingly the Flemish painters, in consequence of their aiming solely to copy nature, are in colouring as excellent as they are wont to be awkward in designing. The best model for the tone of colours and the degradation of shades is furnished by means of the *camera-obscura*. See DIOPTRICS, Sect. 6th and 9th.

Webb, dial.
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SECT. VI. Of Drapery.

DRAPERY is one of the most important branches of the whole art, and accordingly demands the greatest attention and study. It seldom happens that a painter has nothing but naked figures to represent; nay, his subjects generally consist of figures clothed from head to foot. Now the flowing of the folds in every garment depends chiefly upon the relief of the parts that lie under it. A certain author, we forget his name, observes, that as the inequalities of a surface are discoverable by the inequalities in the water that runs over it, so the posture and shape of the members must be discernible by the folds of the garment that covers them. Those idle windings and gatherings, with which some painters have affected to cover their figures, make the clothes made up of them look as if the body had fled from under them, and left nothing in its place

but a heap of empty bubbles, fit emblems of the brain that conceived them. As from the trunk of a tree there issue here and there boughs of various forms, so from one mistress-fold there always flow many lesser ones: and as it is on the quality of the tree that the elegance, compactness, or openness of its branches chiefly depends; it is, in like manner, by the quality of the stuff of which a garment is made, that the number, order, and size of its folds must be determined. To sum up all in two words, the drapery ought to be natural and easy, so as to show what stuff it is, and what parts it covers. It ought, as a certain author expresses it, to cover the body, as it were merely to show it.

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It was formerly the custom with some of our masters to draw all their figures naked, and then drape them; from the same principle that they first drew the skeletons of their figures, and afterwards covered them with muscles. And it was by proceeding in this manner that they attained to such a degree of truth in expressing the folds of their drapery, and the joints and direction of the principal members that lay under it, so as to exhibit in a most striking manner the attitude of the person to whom they belonged. That the ancient sculptors clothed their statues with equal truth and grace, appears from many of them that are still in being; particularly a Flora lately dug up in Rome, whose drapery is executed with so much judgment, and in so grand and rich a style, that it may vie with the finest of their naked statues, even with the Venus of Medicis. The statues of the ancients had so much beauty when naked, that they retained a great deal when clothed. But here it must be considered, that it was usual with them to suppose their originals clothed with wet garments, and of an extreme fineness and delicacy, that, by lying close to the parts, and in a manner clinging to them, they might the better show what these parts were. For this reason a painter is not to confine himself to the study of the ancient statues, lest he should contract a dry style, and even fall into the same faults with some great masters who, accustomed to drape with such light stuffs as sit close to the body, have afterwards made the coarsest lie in the same manner, so as plainly to exhibit the muscles underneath them. It is therefore proper to study nature herself, and those modern masters who have come nearest to her in this branch; such as Paolo Veronese, Andrea del Sarto, Rubens, and above all, Guido Reni. The flow of their drapery is soft and gentle; and the gatherings and plaits are so contrived, as not only not to hide the body, but to add grace and dignity to it. Their gold, silk, and woollen stuffs, are so distinguishable one from another, by the quality of their several lustres, and the peculiar light and shade belonging to each, but above all by the form and flow of their folds, that the age and sex of their figures are hardly more discoverable by their faces. Albert Durer is another great master in this branch, insomuch that Guido himself was not ashamed to study him. There are still extant several drawings made with the pen by this great man, in which he has copied whole figures from Albert, and scrupulously retained the flow of his drapery as far as his own peculiar style, less harsh and sharp, but more easy and graceful, would allow. It may be said that he

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he made the same use of Albert that our modern writers ought to make of the best authors of the 13th century.

To drape a figure well, it is necessary that the folds be large and few in number; because large folds produce great masses of light and shadow, while small ones multiply the objects of view and distract the attention. But if the character of the drapery or kind of stuff require small folds, they should at least be distributed in groups, in such a manner that a great number of small folds shall be subordinate to an equal mass formed by a principal fold.

It is also proper to observe, that the colour of the drapery contributes to the harmony of the whole, and produces effects which the *claro-obscuro* cannot do alone. At the same time, the principles of the *claro-obscuro* should preside over, or at least regulate, the art of drapery. If the folds of the stuff which cover the members exposed to the light are too strongly shaded, they will appear to enter into the members, and cut them.

Drapery contributes to the life, to the character, to the expression of the figures, provided all the movements of the folds announce the lively or more tranquil movement of those figures. The colour, and the kind of stuff, concur also to promote the general expression; brilliant or fine drapery cannot be properly introduced in a mournful subject, nor the opposite in a gay one.

The drapery must also agree with the age and character of the figures: And if nature in any instance is found to contradict those principles, it is because they relate to the ideal of the art; and it is this ideal which carries it to the greatest perfection.

Great attention is also necessary to the situation in which the figures are placed, and the actions about which they are employed. If they are in the act of ascending, a column of air weighs down the drapery; if, on the contrary, they are descending, the drapery is supported and spread out. The folds placed on every member, and the general play of the drapery, should indicate whether the figure is in action or about to be so; whether action be beginning or ending; and whether it be slow, or quick, or violent. All this is agreeable to nature; but it also partakes of the ideal, since nature never can be copied in such fluctuating situations. The practice of the Roman schools, first to draw after nature, and then to paint after the drawing, cannot be adopted by colourists; because nature, according to the kind of the stuffs, produces tones and lights which give more perfection and truth to the work. Meanwhile Raphael, who followed this practice, enjoys the first reputation for giving play to his drapery, and disposing the folds in the best order. In this part he has even attained the height of ideal beauty. He is the greatest painter of drapery, as the Venetians are the greatest in painting stuffs.

Raphael, says Mengs, imitated at first his master Perugin's manner of drapery; and he brought this manner to perfection, by studying the works of Masaccio and of Bartholemew: but he departed entirely from the taste of the school in which he was educated when he had seen the works of the ancients. It was the basso-relievo of antiquity which pointed out to him the true flowing of drapery, and he was not

backward to introduce it. He discovered, by attending to the principles of the ancients, that the naked is the principal part; that drapery is to be regarded altogether as an accessory, and that it is intended to cover, not to conceal; that it is employed from necessity, not caprice; that of consequence the clothes should not be so narrow as to constrain the members, nor so ample as to embarrass them; but that the artist should adapt them to the size and attitude of the figures intended to wear them.

He understood that the great folds should be placed at the large places of the body; and where the nature of the drapery required small folds, that it was necessary to give them a projection, which indicates a subordination to the principal parts.

He made his ample draperies without useless folds, and with bendings at the articulations. It was the form of the naked figure which pointed out to him the form of his folds, and on the great muscles he formed great masses. When any part required to be foreshortened, he covered it with the same number of folds as if it had been straight; but then he crowded them in proportion to the foreshortening.

He frequently discovered the border of his drapery, to show that his figures were not dressed in a simple sack. The form of the principal parts, and the specific weight of the air, were always the causes of his folds. It was easy to discover in his works, by the folds of his drapery, the attitude of the figure previous to the one in which it was placed; and whether, for example, the arm was extended or otherwise, immediately before the action. This was an expression which he had carefully studied on all occasions, because he found it in nature.

When the drapery was to cover the leg or arm but half, or in an imperfect manner, he made it cut obliquely the member which was partly to be covered. His folds were of a triangular form. The reason of this form is in nature: for all drapery has a tendency to enlarge itself and be extended; and as at the same time its own weight obliges it to fall back on itself, it is naturally formed into triangles.

He knew perfectly, that the movements of the body and of its members are the causes of the actual situation of drapery, and of the formation of its folds. All his practice is nothing else but the unfolding and demonstrating of this theory; and drapery executed in any other manner must be in a false and vicious taste.

SECT. VII. *Of Landscape and Architecture.*

WHEN our young painter has made a sufficient progress in those principal branches of his art, the designing, perspective, colouring, and drapery of human figures, he should turn his thoughts to landscape and architecture: for, by studying them, he will render himself universal, and qualified to undertake any subject; so as not to resemble certain literati, who, though great masters in some articles, are mere children in every thing else.

The most eminent landscape-painters are Poussin, Lorenese, and Titian.

Poussin was remarkable for his great diligence. His pieces are quite exotic and uncommon; being set off with buildings in a beautiful but singular style; and

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with learned episodes, such as poets reciting their verses to the woods, and youths exercising themselves in the several gymnastic games of antiquity; by which it plainly appears, that he was more indebted for his subjects to the descriptions of Pausanias than to nature and truth.

Lorenese applied himself chiefly to express the various phenomena of light, especially those perceivable in the heavens. And, thanks to the happy climate of Rome, where he studied and exercised his talents, he has left us the brightest skies, and the richest and most gloriously cloud-tipt horizons, that can be well conceived. Nay, the sun himself, which, like the Almighty, can be represented merely by his effects, has scarce escaped his daring and ambitious pencil.

Titian, the great confident of nature, is the Homer of landscape. His scenes have so much truth, so much variety, and such a bloom in them, that it is impossible to behold them, without wishing, as if they were real, to make an excursion into them. And perhaps the finest landscape that ever issued from mortal hands, is the back ground of his *Martyrdom of St Peter*; where by the difference between the bodies and the leaves of his trees, and the disposition of their branches, one immediately discovers the difference between the trees themselves; where the different soils are so well expressed, and so exquisitely clothed with their proper plants, that a botanist has much ado to keep his hands from them. See Part II. Sect. ii.

Paolo Veronese is in architecture what Titian is in landscape. To excel in landscape, we must, above all things, study nature. To excel in architecture, we must chiefly regard the finest works of art; such as the fronts of ancient edifices, and the fabrics of those moderns who have best studied and best copied antiquity. Next to Brunelleschi and Alberti, who were the first revivers of architecture, came Bramante, Giulio Romano, Sanfovino, Sanmicheli, and lastly Palladio, whose works the young painter should above all the rest diligently study and imprint deeply on his mind. Nor is Vignola to be forgot; for some think he was a more scrupulous copier of antiquity, and more exact, than Palladio himself, inasmuch that most people consider him as the first architect among the moderns. For our part, to speak of him, not as fame, but as truth seems to require, we cannot help thinking, that rather than break through the generality of the rules contrived by him to facilitate practice, he has in some instances deviated from the most beautiful proportions of the antique, and is rather barren in the distribution and disposition of certain members. Moreover, the extraordinary height of his pedestals and cornices hinders the column from showing in the orders designed and employed by him, as it does in those of Palladio. Amongst that great variety of proportions to be met with in ancient ruins, Palladio has been extremely happy in choosing the best. His profiles are well contrasted, yet easy. All the parts of his buildings hang well together. Grandeur, elegance, and beauty, walk hand in hand in them. In short, the very blemishes of Palladio, who was no slave to convenience, and sometimes perhaps was too profuse in his decorations, are picturesque. And we may reasonably believe, that it was by following so great a master, whose works he had continually before his eyes, that Paolo Veronese formed that fine and masterly taste

which enabled him to embellish his compositions with such beautiful structures.

The study of architecture cannot fail, in another respect, of being very useful to the young painter, inasmuch as it will bring him acquainted with the form of the temples, thermæ, basilics, theatres, and other buildings of the Greeks and Romans. Besides, from the basso-relievos with which it was customary to adorn these buildings, he may gather, with equal delight and profit, the nature of their sacrifices, arms, military ensign, and dress. The study of landscape, too, will render familiar to him the form of the various plants peculiar to each soil and climate, and such other things as serve to characterise the different regions of the earth. Thus by degrees he will learn what we call *cosmume*, one of the chief requisites in a painter; since by means of it he may express with great precision the time and place in which his scenes are laid.

SECT. VIII. *Of the Expression of the Passions.*

THAT language which above all others a painter should carefully endeavour to learn, and from nature herself, is the language of the passions. Without it the finest works must appear lifeless and inanimate. It is not enough for a painter to be able to delineate the most exquisite forms, give them the most graceful attitudes, and compose them well together; it is not enough to dress them out with propriety, and in the most beautiful colours; it is not enough, in fine, by the powerful magic of light and shade, to make the canvas vanish. No; he must likewise know how to clothe his figures with grief, with joy, with fear, with anger; he must, in some sort, write on their faces what they think and what they feel; he must give them life and speech. It is indeed in this branch that painting truly soars, and in a manner rises superior to itself; it is in this branch she makes the spectator apprehend much more than what she expresses.

The means employed in her imitations by painting, are the circumscription of terms, the chiaro-scuro, and colours; all which appear solely calculated to strike the visual faculty. Notwithstanding which, she contrives to represent hard and soft, rough and smooth surfaces, which are objects of the touch; and this by means of certain tints, and a certain chiaro-scuro, which has a different look in marble, in the bark of trees, in downy and delicate substances. Nay, she contrives to express sound and motion, by means of light and shade, and certain particular configurations. In some landscapes of Diderich, we almost hear the water murmur, and see it tremble along the sides of the river and of the boats upon it. In the *Battle of Burgogne*, we are really apt to fancy that the trumpet sounds; and we see the horse, who has thrown his rider, scamper along the plain. But what is still more wonderful, painting, in virtue of her various colours and certain particular gestures, expresses even the sentiments and most hidden affections of the soul, and renders her visible, so as to make the eye not only touch and hear, but even kindle into passion and reason.

Many have written, and amongst the rest the famous Le Brun, on the various changes that, according to the various passions, happen in the muscles of the face, which is, as it were, the dumb tongue of the soul.

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They observe, for example, that in fits of anger the face reddens, the muscles of the lips puff out, the eyes sparkle; and that, on the contrary, in fits of melancholy, the eyes grow motionless and dead, the face pale, and the lips sink in. It may be of service to a painter to read these and such other remarks; but it will be of infinitely more service to study them in nature itself, from which they have been borrowed, and which exhibits them in that lively manner which neither tongue nor pen can express.

Upon Le Brun's Treatise on the Passions, we have the following just, though severe, criticism by Winckelmann. "Expression, though precarious in its nature (says he), has been reduced into a system, in a Treatise on the Passions by Charles le Brun, a work generally put into the hands of young artists. The plates which accompany this treatise do not only give to the face the affections of the soul in too high a tone, but there are many of the heads in which the passions are represented in an outrageous manner. He appears to give instructions in expression, as Diogenes gave examples of morality: I act like musicians, said that cynic, who give a high tone, in order to indicate a true one. But the fervour of youth has naturally more inclination to seize the extreme than the middle; and hence it is difficult for the young artist, in copying after Le Brun, to seize the true tone. Youth in general may be supposed to have that regard for the calm and moderate in the arts, which they have for the precepts of wisdom and virtue."

Other French writers have given instructions respecting the expression of the passions, equally exceptionable with those of Le Brun. All of them whom we have consulted make so many divisions and subdivisions of passions, that a philosopher cannot follow them in metaphysical theory, nor a painter exhibit their effects upon canvass. Nature therefore must be his guide, particularly in treating those very minute and almost imperceptible differences, by which, however, things very different from each other are often expressed. This is particularly the case with regard to the passions of laughing and crying; as in these, however contrary, the muscles of the face operate nearly in the same manner. As the famous Pietro de Cortona was one day finishing the face of a crying child in a representation of the Iron Age, with which he was adorning the floor called the *Hot-bath* in the royal palace of Pitti, Ferdinand II. who happened to be looking over him for his amusement, could not forbear expressing his approbation, by crying out, "Oh how well that child cries!" To whom the artist,—"Has your majesty a mind to see how easy it is to make children laugh? Behold, I'll prove it in an instant:" And taking up his pencil, by giving the contour of the mouth a concave turn downwards, instead of the convex upwards which it before had, and with little or no alteration in any other part of the face, he made the child, who a little before seemed ready to burst its heart with crying, appear in equal danger of bursting its sides with immoderate laughter; and then, by restoring the altered features to their former position, he soon set the child a-crying again."

Lectures of
Philip Bal-
dinucci in
the Academy
of La
Crucca il
Lustrato,
&c.

The different expressions of laughter and weeping are thus described by Le Brun. "The movements of laughter are expressed by the eye-brows elevated to-

wards the middle of the eye, and lowered towards the sides of the nose: the eyes almost shut, appear sometimes moistened with tears: the mouth a little open, allows the teeth to be seen: the extremities of the mouth drawn back, make a dimple in the cheeks, which appear to be swelled: the nostrils are open: and the face becomes red. The changes which weeping occasions are equally visible. The eye-brow is lowered on the middle of the forehead; the eyes are almost shut, moistened and lowered towards the sides of the cheeks: the nostrils are swelled, and the veins of the forehead very apparent: the mouth shut, by the lowness of its sides, occasions wrinkles in the cheeks; the under lip is turned down, and presses at the same time the upper lip: the whole countenance is wrinkled and becomes red; especially the eye-brows, the eyes, the nose, and the cheeks."

According to Leonardo da Vinci, the best masters that a painter can have recourse to in this branch are those dumb men who have found out the method of expressing their sentiments by the motion of their hands, eyes, eye-brows, and in short every other part of the body. If this advice be at all proper, such gestures must be imitated with great sobriety and moderation, lest they should appear too strong and exaggerated; and the piece should show nothing but pantomimes, when speaking figures alone are to be exhibited; and so become theatrical and second-hand, or, at best, look like the copy of a theatrical and second-hand nature.

The artist will reap greater benefit from studying such fine ancient heads as those of Mithridates, Seneca, Alexander dying, Cleopatra, Niobe, &c. and above all, from attentively observing such movements of nature as we daily meet with in the world. But let him chiefly consult his looking-glass, and study after his own face, what, in certain expressions, are the muscles, the lineaments, the tints, and the accidental circumstances which characterise the situation of the soul. It rarely happens that a model, which is affected with no sentiment, presents that to us which we ourselves feel, and which we are capable of expressing when we are our own model. Puget executed the legs of his Milo after his own; and many ingenious artists have had recourse to a similar expedient. In short, to be affected ourselves is the true secret of affecting the spectator.

We must not neglect, at the same time, to secure the fleeting characters which nature presents to us on a thousand occasions. We must distrust our memory, and all the resources which are not easily employed when we happen to stand in need of them. It is necessary to watch the circumstances from which we can derive any useful hint; to seize them when they present themselves; and to be careful never to lose, by an irreparable negligence, the fruit of a happy incident.

Let us also endeavour to possess the feeling of what we are to express; whether it be by forming the image of a thing absent as if it were present, or by being affected with the lively idea of a situation which we have either experienced, or with which we have seen another person remarkably affected. We must never forget, that all the terrible or agreeable, the violent or slight movements, are to be treated in a natural manner, and bear a relation to the age, condition,

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tion, sex, and dignity of the person. Those gradations, which art varies according to the nature of the situation, and the character of men, compose the principal ingredients of discernment, knowledge, and taste. They have been the objects of attention and inquiry to the most eminent painters of every age; and they were of the last importance in assisting them to arrive at that degree of excellence to which they have carried expression.

We are told strange things of the ancient painters of Greece in regard to expression; especially of Aristides; who, in a picture of his, representing a woman wounded to death at a siege, with a child crawling to her breast, makes her appear afraid, lest the child, when she was dead, should, for want of milk, suck her blood. *A Medea murdering her children*, by Timonachus, was likewise much cried up, as the ingenious artist contrived to express, at once, in her countenance, both the fury that hurried her on to the commission of so great a crime, and the tenderness of a mother that seemed to withhold her from it. Rubens attempted to express such a double effect in the face of Mary of Medicis, still in pain from her past labour, and at the same time full of joy at the birth of a Dauphin. And in the countenance of Sancta Polonia, painted by Tiepolo for St Anthony's church at Padua, one may clearly read a mixture of pain from the wound given her by the executioner, and of pleasure from the prospect of paradise opened to her by it.

Few, to say the truth, are the examples of strong expression afforded by the Venetian, Flemish, or Lombard schools. Deprived of that great happiness, the happiness of being able to contemplate, at leisure, the works of the ancients, the purest sources of perfection in point of design, expression, and character; and having nothing but nature constantly before their eyes; they made strength of colouring, blooming complexions, and the grand effects of the chiaro scuro, their principal study: they aimed more at charming the senses than at captivating the understanding. The Venetians, in particular, seem to have placed their whole glory in setting off their pieces with all that rich variety of personages and dress, which their capital is continually receiving by means of its extensive commerce, and which attracts so much the eyes of all those who visit it. It is much to be doubted, if, in all the pictures of Paolo Veronese, there is to be found a bold and judicious expression, or one of those attitudes which, as Petrarch expresses it, speak without words; unless, perhaps, it be that remarkable one in his *Marriage Feast of Cana of Galilee*. At one end of the table, and directly opposite to the bridegroom, whose eyes are fixed upon her, there appears a woman in red, holding up to him the skirt of her garment; as much as to say, we may suppose, that the wine miraculously produced was exactly of the colour with the stuff on her back. And in fact it is red wine we see in the cups and pitchers. But all this while the faces and attitudes of most of the company betray not the least sign of wonder at so extraordinary a miracle. They all, in a manner, appear intent upon nothing but eating, drinking, and making merry. Such, in general, is the style of the Venetian school. The Florentine, over which Michael Angelo presided, above all things curious of design, was most minutely and scrupulously ex-

act in point of anatomy. On this she set her heart, and took singular pleasure in displaying it. Not only elegance of form, and nobleness of invention, but likewise strength of expression, triumph in the Roman school, nursed as it were amongst the works of the Greeks, and in the bosom of a city which had once been the seminary of learning and politeness. Here it was that Domenichino and Poussin, both great masters of expression, refined themselves, as appears more particularly by the *St Jerome* of the one, and the *Death of Germanicus*, and the *Slaughter of the Innocents*, by the other. Here it was that Raphael arose, the sovereign master of them all. One would imagine, that pictures, which are generally considered as the books of the ignorant, and of the ignorant only, he had undertaken to make the instructors even of the learned. One would imagine, that he intended, in some measure, to justify Quintilian*, who affirms, that painting has more power over us than all the arts of rhetoric. There is not, indeed, a single picture of Raphael's, from the study of which those who are curious in point of expression may not reap great benefit; particularly his *Martyrdom of St Felicitas*, his *Transfigurations*, his *Joseph explaining to Pharaoh his dream*, a piece so highly rated by Poussin. His *School of Athens*, in the Vatican, is, to all intents and purposes, a school of expression. Among the many miracles of art with which this piece abounds, we shall single out that of the four boys attending on a mathematician, who, stooping to the ground with his compasses in his hand, is giving them the demonstration of a theorem. One of the boys, recollecting within himself, keeps back, with all the appearance of profound attention to the reasoning of the master; another, by the briskness of his attitude, discovers a greater quickness of apprehension; while the third, who has already seized the conclusion, is endeavouring to beat it into the fourth, who, standing motionless, with open arms, a staring countenance, and an unspeakable air of stupidity in his looks, will never perhaps be able to make any thing of the matter. And it is probably from this very group that Albani, who studied Raphael so closely, drew the following precept of his: "That it behoves a painter to express more circumstances than one by every attitude; and so to employ his figures, that, by barely seeing what they are actually about, one may be able to guess, both what they have been already doing, and are next going to do." This is indeed a difficult precept; but it is only by a due observance of it that the eye and the mind can be made to hang in suspense on a painted piece of canvass. It is expression that a painter, ambitious to soar in his profession, must, above all things, labour to perfect himself in. It is the last goal of his art, as Socrates proves to Parrhasius. It is in expression that dumb poetry consists, and what the prince of our poets calls a visible language.

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Instit. lib.
xi. cap. 3.

Xenoph.
Memorab.
lib. iii.

SECT. IX. Of Invention.

As the operations of a general should all ultimately tend to battle and conquest, so should all the thoughts of a painter to perfect invention. Now, the studies which we have been hitherto recommending, will prove so many wings by which he may raise himself, as it were, from the ground, and soar on high, where

Invention. when desirous of trying his strength this way, and producing something from his own fund. Invention is the finding out probable things, not only such as are adapted to the subject in hand, but such, besides, as by their sublimity and beauty are most capable of exciting suitable sentiments in the spectator, and of making him, when they happen to be well executed, fancy that it is the subject itself in its greatest perfection, and not a mere representation of it, that he has before him. We do not say true things, but probable things; because probability or verisimilitude is, in fact, the truth of those arts which have the fancy for their object. It is, indeed, the business and duty of both naturalists and historians to draw objects as they find them, and represent them with all those imperfections and blemishes, to which, as individuals, they are subject. But an ideal painter, and such alone is a true painter, resembles the poet: instead of copying, he imitates; that is, he works with his fancy, and represents objects endued with all that perfection which belongs to the species, and may be conceived in the archetype.

“ ’Tis nature all, but nature methodis’d ;”

says an eminent poet, speaking of poetry: And the same may be said of painting; it is nature methodized, and made perfect. Inasmuch, that the circumstances of the action, exalted and sublimed to the highest degree of beauty and boldness they are susceptible of, may, though possible, have never happened exactly such as the painter fancies and thinks proper to represent them. Thus, the piety of Æneas, and the anger of Achilles, are things so perfect in their kind, as to be merely probable. And it is for this reason that poetry, which is only another word for invention, is more philosophical, more instructive, and more entertaining, than history.

Here it is proper to observe, what great advantages the ancient had over the modern painters. The history of the times they lived in, fraught with great and glorious events, was to them a rich mine of the most noble subjects, which, besides, often derived no small sublimity and pathos from the mythology upon which their religion was founded. So far were their gods from being immaterial, and placed at an infinite distance above their worshippers; so far was their religion from recommending humility, penance, and self-denial, that, on the contrary, it appeared calculated merely to flatter the senses, inflame the passions, and poison the fancy. By making the gods partake of our nature, and subjecting them to the same passions, it gave man hopes of being able to mix with those who, though greatly above him, resembled him, notwithstanding, in so many respects. Besides, those deities of theirs were in a manner visible, and to be met at every step. The sea was crowded with Tritons and Nereids, the rivers with Naiads, and the mountains with Dryads. The woods swarmed with Fauns and Nymphs, who, in these obscure retreats, sought an asylum for their stolen embraces. The most potent empires, the most noble families, the most celebrated heroes, all derived their pedigree from the greater divinities. Nay, gods interested themselves in all the concerns of mankind. Apollo, the god of long arrows, stood by the side of Hector in the fields of Troy, and inspired him with new strength and courage to batter

down the walls and burn the ships of the Greeks. *Invention.* These, on the other hand, were led on to the fight and animated by Minerva, preceded by Terror, and followed by Death. Jove nods, his divine locks shake on his immortal head; Olympus trembles. With that countenance, which allays the tempest, and restores serenity to the heavens, he gathers kisses from the mouth of Venus, the delight of gods and of men. Among the ancients, every thing sported with the fancy; and in those works which depend entirely on the imagination, some of our greatest masters have thought they could not do better than borrow from the Pagans, if we may be allowed to say it, their pictures of Tartarus, in order to render their own drawings of hell more striking.

After all, there have not been wanting able inventors in painting among the moderns. Michael Angelo, notwithstanding the depth and boldness of his own fancy, is not ashamed, in some of his compositions, to *Dantize*; as Phidias and Apelles may be said formerly to have *Homerized*. Raphael, too, tutored by the Greeks, has found means, like Virgil, to extract the quintessence of truth; has seasoned his works with grace and nobleness, and exalted nature, in a manner, above herself, by giving her an aspect more beautiful, more animating, and more sublime, than she is in reality accustomed to wear. In point of invention, Domenichino and Hannibal Carracci come very near Raphael, especially in the pieces painted by them in Rome; nor does Poussin fall very short of him in some of his pictures, particularly in his *Esther before Ahasuerus*, and his *Death of Germanicus*, the richest jewel belonging to the Barberine family. Of all the painters who have acquired any extraordinary degree of reputation, no one studied less to set off his pieces by bold and beautiful circumstances, or was more a stranger to what is called *poetical perfection*, than Jacopo Bassano. Among the numberless instances we could produce of his carelessness this way, let it suffice to mention a *Preaching of St Paul* painted by him in a place, near that of his birth, called *Marostega*. Instead of representing the apostle full of a divine enthusiasm, as Raphael has done, and thundering against the superstitions of the heathen in an assembly of Athenians; instead of exhibiting one of his auditors struck to the quick, another persuaded, a third inflamed; he makes him hold forth, in a village of the Venetian state, to a parcel of poor peasants and their wives, who take not the least notice of him; the women especially, who seem to mind nothing but the country labours in which he had found them employed.

With regard to invention, painting and poetry resemble each other so much in many other respects, besides that of combining in every action all the beauty and elegance it will admit, that they well deserve the name of *sister arts*. They differ, however, in one point, and that too of no small importance. It is this. The poet, in the representation of his story, relates what has already happened, prepares that which is still to come, and so proceeds, step by step, through all the circumstances of the action; and, to produce the greater effect on his hearers, avails himself of the succession of time and place. The painter, on the contrary, deprived of such helps, must be content to de-

pend

Invention.

pend upon one single moment. But what a moment! A moment, in which he may conjure up, at once, to the eyes of the spectator, a thousand objects; a moment, teeming with the most beautiful circumstances that can attend the action; a moment, equivalent to the successive labours of the poet. This the works of the greatest masters, which are everywhere to be seen, sufficiently evince; among others, the *St Paul at Lystra*, by Raphael, whom it is impossible not to praise as often as this picture is mentioned. In order to give the spectator a thorough insight into the subject of this piece, the painter has placed, in the front of it, the cripple already restored to his limbs by the apostle, fired with gratitude towards his benefactor, and exciting his countrymen to yield him all kinds of honour. Round the cripple are some figures lifting up the skirts of his coat, in order to look at the legs reduced to their proper shape, and acknowledging by gestures full of astonishment the reality of the miracle; an invention, says a certain author, a professed admirer of antiquity, which might have been proposed as an example in the happiest age of Greece.

Webb, dial. 7.

We have another shining instance of the power of painting to introduce a great variety of objects on the scene at the same time, and of the advantage it has in this respect over poetry, in a drawing by the celebrated La Fage. This drawing represents the descent of Æneas into hell. The field is the dark caverns of Pluto's kingdom, through the middle of which creeps slowly the muddy and melancholy Acheron. Nearly in the centre of the piece appears Æneas with the golden bough in his hand, and with an air of astonishment at what he sees. The Sybil, who accompanies him, is answering the questions which he asks her. The personage there is the ferryman of the pitchy lake, by which even the gods themselves are afraid to swear. Those who, crowding in to the banks of the river, numberless as the leaves shaken off the trees by autumnal blasts, express, with outstretched hands, an impatience to be ferried to the opposite shore, are the unhappy manes, who, for want of burial, are unqualified for that happiness. Charon, accordingly, is crying out to them, and with his lifted-up oar driving them from his boat, which has already taken in a number of those who had been honoured with the accustomed funeral rites. Behind Æneas and the Sybil we discover a confused group of wretched souls, lamenting bitterly their misfortune in being denied a passage; two of them wrapped up in their clothes, and, in a fit of despair, sunk upon a rock. Upon the first lines of the piece stands a third group of uninhumed shades, Leucaspes, Orontes, and, in the midst of them, the good old Palinurus, formerly master and pilot of the hero's own vessel, who with joined hands most earnestly desires to be taken along with him into the boat, that, after death, at least, he may find some repose, and his dead body no longer remain the sport of winds and waves. Thus, what we see scattered up and down in many verses by Virgil, is here, as it were, gathered into a focus, and centered by the ingenious pencil of the painter, so as to form a subject well worthy of being exposed, in more shapes than one, to the eyes of the public.

When a painter takes a subject in hand, be it historical, be it fabulous, he should carefully peruse the
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books which treat of it, imprint well on his mind all the circumstances that attend it, the persons concerned in it, and the passions with which they must have been severally animated; not omitting the particulars of time and place. His next business is to create it, as it were, anew, observing the rules already laid down for that purpose: From what is true, choosing that which is most striking; and clothing his subject with such accessory circumstances and actions, as may render it more conspicuous, pathetic, and noble, and best display the powers of the inventive faculty. But, in doing this, great discretion is requisite; for, let his imagination grow ever so warm, his hand is never to execute any thing that is not fully approved by his judgment. Nothing low or vulgar should appear in a lofty and noble argument; a fault, of which some of the greatest masters, even Lampieri and Poussin, have been now and then guilty.

The action must be one, the place one, the time one. We need not say any thing of those painters, who, like the writers of the Chinese and Spanish theatre, cram a variety of actions together, and so give us, at once, the whole life of a man. Such blunders, it is presumed, are too gross to be feared at present. The politeness and learning of the age seem to demand considerations of a more refined nature; such as, that the episodes introduced in the drama of a picture, the better to fill and adorn it, should be not only beautiful in themselves, but indispensably requisite. The games celebrated at the tomb of Anchises, in Sicily, have a greater variety in them, and more sources of delight, than those that had been before celebrated at the tomb of Patroclus under the walls of Troy. The arms forged by Vulcan for Æneas, if not better tempered, are at least better engraved, than those which the same god had forged several ages before for Achilles. Nevertheless, in the eyes of judges, both the games and the arms of Homer are more pleasing than those of Virgil, because the former are more necessary in the *Iliad* than the latter in the *Æneid*. Every part should agree with, and have a relation to, the whole. Unity should reign even in variety; for in this beauty consists. This is a fundamental maxim in all the arts whose object it is to imitate the works of nature.

Pictures often borrow no small grace and beauty from the fictions of poetry. Albani has left us, in several of his works, sufficient proofs of the great share the belles lettres had in refining his taste. But Raphael, above all others, may in this branch too be considered as a guide and master. To give but one instance out of many; what a beautiful thought was it to represent the river himself, in a *Passage of Jordan*, supporting his waters with his own hands, in order to open a way to the army of the Israelites! Nor has he displayed less judgment in reviving, in his designs engraved by Agostino of Venice, the little loves of Æneas playing with the arms of Alexander, conquered by the beauty of Roxana.

Among the ancients, Apelles and Parrhasius were those who distinguished themselves most in allegorical subjects, in which the inventive faculty shows itself to the greatest advantage; the first by his picture of *Calumny**, the second by that of the *Genius of the Athenians*†. The ancient painter called Galaton gave

See *Life of Apelles* upon Calumny; and Carlo Dati, in the *Life of Apelles*, note 20. † C. Plinius Nat. Hist. lib. xxxv. likewise c. 10.

Invention. likewise a fine proof of his genius in this branch, by representing a great number of poets greedily quenching their thirst in the waters gushing from the mouth of the sublime Homer. And to this allegory, according to Guigni, Pliny * has an eye, when he calls that prince of poets the *fountain of wits*. But it is, after all, no way surprising that we should often meet such fine flights of fancy in the ancient artists. They were not guided in their works by a blind practice: they were men of polite education; conversant with the letters of the age in which they lived; and the companions, rather than the servants, of the great men who employed them. The finest allegorical painter among the moderns was Rubens; and he was accordingly much celebrated for it. The best critics, however, find fault with his uniting in the Luxemburg gallery, the queen-mother, in council, with two cardinals and Mercury. Nor is there less impropriety in his making Tritons and Nereids, in another piece of the same gallery, swim to the queen's vessel through the galleys of the knights of St Stephen. Such freedoms are equally disgusting with the prophecies of Sannazaro's Proteus, concerning the mystery of the incarnation, or the Indian kings of Camoens, reasoning with the Portuguese on the adventures of Ulysses.

The best modern performances in picturesque allegory are certainly those of Poussin; who availed himself, with great discretion and judgment, of the vast treasures with which, by a close study of the ancients, he had enriched his memory. On the other hand, Le Brun, his countryman, has been very unhappy this way. Ambitious to have every thing his own, instead of allegories, he has filled the gallery of Versailles with enigmas and riddles, of which none but himself was qualified to be the *Cælipus*. Allegory must be ingenious, it is true; but then it must be equally perspicuous; for which reason, a painter should avoid all vague and indeterminate allusions, and likewise those to history and heathen mythology, which are too abstruse to be understood by the generality of spectators. The best way, perhaps, to symbolize moral and abstract things, is to represent particular events: as Caracci did, by advice of Monsignore Agucchi, in the Farnesian palace. For example, what can better express a hero's love towards his country, than the virtuous Decius consecrating himself boldly to the infernal gods, in order to secure victory to his countrymen over their enemies? What finer emblems can we desire of emulation, and an insatiable thirst for glory, than Julius Cæsar weeping before the statue of Alexander in the temple of Hercules at Gades? of the inconstancy of fortune, than Marius sitting on the ruins of Carthage, and receiving, instead of the acclamations of an army joyfully saluting him imperator, orders from a licitor of Sextilius to quit Africa; of indiscretion, than Candaules, who, by showing the naked beauties of his wife to his friend Giges, kindled a passion that soon made him repent his folly? Such representations as these require no comment; they carry their explanation along with them. Besides, supposing, and it is the worst we can suppose, that the painter's aim in them should happen not to be understood, his piece would still give delight. It is thus that the fables of Ariosto prove so entertaining, even to those who understand nothing of the moral

couched under them; and likewise the *Æneis*, though all do not comprehend the allusions and double intent of the poet.

SECT. X. Of Disposition.

So much for invention. *Disposition*, which may be considered as a branch of invention, consists in the proper stationing of what the inventive faculty has imagined, so as to express the subject in the most lively manner. The chief merit of disposition may be said to consist in that disorder, which, wearing the appearance of mere chance, is in fact the most studied effect of art. A painter, therefore, is equally to avoid the dryness of those ancients who always planted their figures like so many couples in a procession, and the affectation of those moderns who jumble them together as if they were met merely to fight and squabble. In this branch Raphael was happy enough to choose the just medium, and attain perfection. The disposition of his figures is always exactly such as the subject requires. In the *Battle of Constantine*, they are confusedly clustered with as much art, as they are regularly marshalled in *Christ's commitment of the keys to St Peter* and constituting him prince of the apostles.

Let the inferior figures of a piece be placed as they will, the principal figure should strike the eye most, and stand out, as it were, from among the rest. This may be effected various ways, as by placing it on the foremost lines, or in some other conspicuous part of the piece; by exhibiting it, in a manner, by itself; by making the principal light fall upon it; by giving it the most resplendent drapery; or, indeed, by several of these methods, nay, by all of them together. For, being the hero of the picturesque fable, it is but just that it should draw the eye to itself, and lord it, as it were, over all the other objects.

According to Leon Batista Alberti, painters should follow the example of comic writers, who compose their fable of as few persons as possible. For, in fact, a crowded picture is apt to give as much pain to the spectator, as a crowded road to the traveller.

Some subjects, it must be granted, require a number, nay, a nation, as it were, of figures. On these occasions, it depends entirely on the skill of the painter to dispose of them in such a manner, that the principal ones may always make the principal appearance; and contrive matters so, that the piece be not overcrowded, or want convenient rests and pauses. He must, in a word, take care that his piece be full, but not charged. In this respect, the *Battles of Alexander* by Le Brun are master-pieces which can never be sufficiently studied; whereas nothing, on the other hand, can be more unhappy than the famous *Paradise* of Tintoret, which covers one entire side of the great council-chamber at Venice. It appears no better than a confused heap of figures, a swarm, a cloud, a chaos, which pains and fatigues the eye. What a pity it is that he did not dispose this subject after a model of his own, now in the gallery of Bevilacqua at Verona! In this last, the several choirs of martyrs, virgins, bishops, and other saints, are judiciously thrown into so many clusters, parted here and there by a fine fleece of clouds; so as to exhibit the innumerable host of heaven

Disposition. ven drawn up in a way that makes a most agreeable and glorious appearance. There goes a story, to our purpose, of a celebrated master, who in a drawing of the Universal Deluge, the better to express the immensity of the waters that covered the earth, left a corner of his paper without figures. Being asked, if he did not intend to fill it up: No, said he; do not you see that my leaving it empty is what precisely constitutes the picture?

The reason for breaking a composition into several groups is, that the eye, passing freely from one object to another, may the better comprehend the whole. But the painter is not to stop here; for these groups are, besides, to be so artfully put together, as to form rich clusters, give the whole composition a singular air of grandeur, and afford the spectator an opportunity of discerning the piece at a distance, and taking the whole in, as it were, at a single glance. These effects are greatly promoted by a due regard to the nature of colours, so as not to place together those which are apt to pain by their opposition, or distract by their variety. They should be so judiciously disposed as to temper and qualify each other.

A proper use of the chiaro-scuro is likewise of great service on this occasion. The groups are easily parted, and the whole picture acquires a grand effect, by introducing some strong falls of shade, and, above all, one principal beam of light. This method has been followed with great success by Rembrandt in a famous picture of his, representing the Virgin at the foot of the cross on mount Calvary; the principal light darting upon her through a break of the clouds, while the rest of the figures about her stand more or less in the shade. Tintoret, too, acquired great reputation, as well by that briskness with which he enlivened his figures, as by his masterly manner of shading them; and Polidoro de Caravaggio, though he scarce painted any thing but basso-relievos, was particularly famous for introducing with great skill the effects of the chiaro-scuro, a thing first attempted by Mantegna in his *Triumph of Julius Caesar*. It is by this means that his compositions appear so strikingly divided into different groups, and, among their other perfections, afford so much delight through the beautiful disposition that reigns in them.

In like manner, a painter, by the help of perspective, especially that called *arial*, the opposition of local colours, and other contrivances which he may expect to hit upon by studying nature, and those who have best studied her before him, will be able not only to part his groups, but make them appear at different distances, so as to leave sufficient passages between them.

But the greatest caution is to be used in the pursuit of the methods here laid down; especially in the management of the chiaro-scuro, that the effects attributed to light and shade, and to their various concomitants, may not run counter to truth and experience. This is a capital point. For this purpose, a painter would do well to make, in little figures, as Tintoret and Poussin used to do, a model of the subject that he intends to represent, and then illuminate it by lamp or candle light. By this means he may come to know with certainty, if the chiaro-scuro, which he has formed in his mind, does not clash with the reason of things.

Disposition. By varying the height and direction of his light, he may easily discover such accidental effects as are most likely to recommend his performance, and so establish a proper system for the illuminating it. Nor will he afterwards find it a difficult matter to modify the quality of his shades, by softening or strengthening them, according to the situation of his scene, and the quality of the light falling upon it. If it should happen to be a candle or lamp-light scene, he would then have nothing to do but consider his model well, and faithfully copy it.

In the next place, to turn a group elegantly, the best pattern is that of a bunch of grapes adopted by Titian. As, of the many grains that compose a bunch of grapes, some are struck directly by the light, and those opposite to them are in the shade, whilst the intermediate ones partake of both light and shade in a greater or less degree; so, according to Titian, the figures of a group should be so disposed, that, by the union of the chiaro-scuro, several things may appear as it were but one thing. And in fact it is only from his having pursued this method, that we can account for the very grand effect of his pieces this way, in which it is impossible to study him too much.

The mannerists, who do not follow nature in the track of the masters just mentioned, are apt to commit many faults. The reason of their figures casting their shades in this or that manner seldom appears in the picture, or at least does not appear sufficiently probable. They are, besides, wont to trespass all bounds in splashing their pieces with light, that is, in enlivening those parts which we usually term the deads of a picture. This method, no doubt, has sometimes a very fine effect; but it is, however, to be used with no small discretion, as otherwise the whole loses that union, that pause, that majestic silence, as Carracci used to call it, which affords so much pleasure. *The Hogarth's Analysis of Beauty.* The eye is not less hurt by many lights scattered here and there over a picture, than the ear is by the confused noise of different persons speaking all together in an assembly.

Guido Reni, who has imparted to his paintings that gaiety and splendor in which he lived, seems enamoured with a bright and open light; whereas Michael Angelo da Caravaggio, who was of a fullen and savage disposition, appears fondest of a gloomy and clouded sky: so that neither of them were qualified to handle indifferently all objects. The chiaro-scuro may likewise prove of great service to a painter in giving his composition a grand effect; but, nevertheless the light he chooses must be adapted to the situation of the scene where the action is laid: nor would he be less faulty, who in a grotto or cavern, where the light entered by a chink, should make his shades soft and tender, than he who should represent them strong and bold in an open sky-light.

But this is by no means the only fault which mannerists are apt to be guilty of in historical pieces, and particularly in the disposition of their figures. To say nothing of their favourite group of a woman lying on the ground with one child at her breast, and another playing about her, and the like, which they generally place on the first lines of their pieces; nor of those half-figures in the back ground peeping out from the hollows contrived for them: they make a common practice

Disposition. tice of mixing naked with clothed figures; old men with young; placing one figure with its face towards you, and another with its back; they contrast violent motions with languid attitudes, and seem to aim at opposition in every thing; whereas oppositions never please, but when they arise naturally from the subject, like antitheses in a discourse.

As to foreshortened figures, too much affectation in using or avoiding them is equally blameable. The attitudes had better be composed than otherwise. It very seldom happens that there is any occasion for making them so impetuous as to be in danger of losing their equilibrium; a thing too much practised by some painters.

In regard to drapery, equal care should be taken to avoid that poverty, which makes some masters look as if, through mere penury, they grudged clothes to their figures; and that profusion which Albani imputed to Guido, saying, that he was rather a tailor than a painter. The ornaments of dress should be used with great sobriety; and it will not be amiss to remember what was once said to an ancient painter: "I pity you greatly; unable to make Helen handsome, you have taken care to make her fine."

Let the whole, in a word, and all the different parts of the disposition, possess probability, grace, costume, and the particular character of what is to be represented. Let nothing look like uniformity of manner; which does not appear less in the composition than it does in colouring, drapery, and design; and is, as it were, that kind of accent, by which painters may be as readily distinguished as foreigners are, by pronouncing in the same manner all the different languages they happen to be acquainted with.

SECT. XI. *Of Illusion.*

AMONG painters, and the writers on painting, there is one maxim universally admitted and continually inculcated; it is, that *nature ought to be imitated*, and objects are said to be represented naturally, when they have such relief that they may seem real. If we inquire to what degree painting may carry this illusion, we shall find that it deceives the eye, and obliges the spectator to employ the touch in mouldings and in basso-relievos where they are a little projected; but that it is weakened and the effect partly destroyed where the projection is one or two feet. It is possible also to make it in the highest degree complete in pictures of flowers, fruits, and other representations of still life, provided they be seen in a certain point of view, and at a considerable distance; but there is no example of a picture containing a number of figures, and placed in a proper light, being mistaken for real life. We are told, indeed, of a bust of an abbé painted by Charles Coypel, which, placed in a certain direction behind a table, and in a certain light, deceived several persons so completely as to induce them to salute it: but, without admitting any thing very extraordinary in the projection or illusion of this painting, it is evident, from the circumstances attending the relation, that the deception arose from surprise and inattention, which might happen to a production of an inferior artist. And hence we may conclude, that it is vain to pretend to perfect the illusion, especially in pic-

tures consisting of a number of figures, and with considerable distances supposed between them.

Among the obstacles which are opposed to the perfection of this branch of the art, we shall chiefly attend to those which naturally proceed from our habits of thinking and judging on all occasions. These, together with the experience we daily have of light on all kinds of surfaces, and of all colours, are sufficient to demonstrate the want of reality in the mere representation of any scenes.

It has been elsewhere shown, that distance, figure, and magnitude, are not naturally objects of perception by the sense of sight; that we judge of these things by the eye only, in consequence of associations early formed between the perceptions of touch and the corresponding impressions on the retina and optic nerve by the rays of light; and that a painter makes his picture resemble the original, merely by laying his colours on a plain surface in such a manner, as that they reflect the same rays of light with the convex or concave original, when the spectator stands at the proper distance (see METAPHYSICS, n° 49, 50, 51, 52, and 95). But if this be admitted, illusion in painting can never be made perfect, on account of the inevitable falsity of the shades which mark the most distant parts of the picture. The painter can only imitate those shades by obscure colours, laid on a plane surface, and susceptible of reflecting the light with a degree of force relative to the real distance. Now our eyes give us the true plane of this surface, opposed to the idea of deepening which the painter wishes to produce, a contrariety which prevents the deception. On this account, the faults found in the works of the greatest masters, with regard to the effects produced by the whole, most frequently relate to their manner of shading, which is sufficient to prove, that the want of illusion in painting depends chiefly on the imperfection of the shades.

This defect, though it cannot be wholly avoided, may yet be rendered less perceptible. There has yet, indeed, been no painter able to imitate shadow, nor is it probable that any one will ever perfectly accomplish this task. Shadow in nature is not a body, but the privation of light, which destroys colours in a greater or less degree, in proportion as it is more or less complete. Now the painter can only imitate this privation and real darkness, by colours which must from their very nature be capable of reflecting light.—The colours may be more or less obscure, but they preserve always something which gives a mixture of reflection. To carry the imitation of shadow to the highest degree of perfection, it would be necessary to apply a colour capable of darkening all others, more or less as there should be occasion, and which might have no visible trace of its existence, that is, no one part of it which reflected one coloured ray more strongly than another. Perhaps this kind of negative colour might be found in practice to be of service to the art; but it would not render the surface totally invisible, for it would be necessary, farther, that it should have the property of not reflecting a single ray of light when exposed to it; which is altogether impossible, as there is no colour or body in nature without reflection in such a situation.

We shall be further convinced of the impossibility

Illusion.

of painting shadow, if we attend to the pictures of the greatest masters, with regard to the imitation of truth. Every part, when taken by itself, connected with light, or with demitints, presents a perfect imitation. Even the different degrees of light or the objects are sufficiently exact; but notwithstanding this assemblage of circumstances corresponding with truth, and of which the result should be perfect *illusion*, yet in considering the whole, we are never so completely deceived, as to take a picture for a reality; from which we may conclude, that the want of illusion proceeds almost entirely from the imperfection of shading.

Illusion then, in the strictest sense, cannot exist in painting; but there is another kind of illusion, perhaps improperly so called, which is one of the principal parts of the art, and worthy of the greatest attention: It is, that the picture shall resemble truth to such a degree by the justness of its forms, by the combination of colours, and by all its general effects, that the image shall give all the pleasure to be expected from the imitation of truth. This is not illusion in the proper sense of the word, since it exists as well in pictures on a small scale as in those of equal dimensions with the original; but it is that truth of imitation of which painting is susceptible, even in pictures containing any number of figures at any reasonable distance from each other.

But it remains to be considered whether this imitation of truth, taken by itself, be the highest attainable perfection in painting. It is generally granted, that the greatest beauty is that which not only pleases at first view, but on the nearest and most critical examination. But if illusion, such as we have described it, were the sole merit of the art, it would follow, that the person who was least acquainted with its beauties would experience the same pleasure as he who had studied them most. Farther, in examining the works of the greatest masters, it is easy to perceive, that it is not their illusion which has excited the attention and admiration of the critic. Even the works of the divine Raphael do not deceive the eye in any point of view more completely than those of an ordinary painter. Raphael, pure in his character and design, is, without doubt, very deficient in this part of the art. Meanwhile the grandeur of his ideas in composition, and the choice of his forms; the beauty of his heads, wherein one does not admire simply the imitation of any known truth; his ingenious and noble manner in drapery, which yet does not resemble any known stuff, or the garb of any nation; in short, all his beauties are superior to the simple imitation of truth, and contradict the sentiment of the greatest pleasure arising from illusion.

If we pass to those who have pursued colouring with the greatest success, we shall find them, doubtless, approach nearer to illusion than those who have neglected it; and it is also a fact, that their works have been more universally admired.

At the same time it is not the illusion occasioned by colours which has altogether excited this admiration. The exquisite demitints and the freshness of Corregio and Titian, which excel the ordinary beauties of nature, and even imitate her most perfect productions, may perhaps not be considered as destroying illusion;

but it is no less a fact, that weaker and less precious colouring would carry it to greater perfection. Besides, this large, easy, and exquisite, manner of painting, this harmony, of which they have given us the best examples, are owing to qualities in them much more excellent than what would be sufficient to produce the simple imitation of truth. Guido, Corregio, and some others, appear to approach nearer to illusion. But even those masters prove by their works, that the most estimable beauties in painting do not all tend to this branch of the art; for notwithstanding the high character which they have gained, they are much inferior to Raphael, Corregio, and Titian, although the first failed in colouring and in the knowledge of the *claro-obscuro*, the second in point of correctness, and the third in the choice of noble subjects.

From this we may conclude, that the nearest resemblance to truth is not the sole object in painting; that it acquires a superior degree of elevation by the art of adding beauty and perfection to the most exact resemblance; and that it is this art which distinguishes and characterizes extraordinary men.

If we run over the great branches of painting, we shall find a number of essential beauties different from those which are capable of carrying illusion to the greatest possible height. In composition, we principally admire the extent of genius, the choice of picturesque and graceful attitudes, the ingenious combination of groups, whether in uniting the light and shade in order to obtain the greatest effect, or in disposing a whole in such a manner as to make no part superfluous; and finally, that kind of practical talent by which the mind takes possession of nature, and forces it to produce all the beauties of which the art is susceptible. In this enumeration of particulars it is easy to perceive that the beauties of composition are very distant from those of illusion.

To obtain illusion in design, there is no occasion for correctness nor taste beyond what is perceived in nature by the most ignorant spectator. And with regard to colouring, that is not always most admired which is most natural. What departs widely from truth, indeed, is not of consequence beautiful, but many qualities are required besides the simple imitation of truth. Freshness, ease, and transparency in certain tones, are deemed absolutely requisite; and the most esteemed colourists have carried their beauties in all these respects beyond what they have seen in nature. If some tones in the fleshy parts have approached towards vermilion, to a light-blue, or a silver-grey, they have made them more apparent; not only to point them out to the spectator, but to show their knowledge in the discovery and their art in painting them. This would have been going beyond the limits of perfection, if these had consisted in simple illusion.

The opposition of colour, of light, and of shade, would have been in this case also superfluous; for nature is always true, without any pointed attempt to make her more engaging. The suppression of certain lights, which truth would require, and which art extinguishes, in order to augment the harmony of effect, would be also worthy of censure, whatever pleasure would result from it.

Finally,

Illusion.

Finally, one of the greatest beauties of the art, namely the peculiar manner of a great master, has no relation to illusion. This is not even founded in nature, but depends on the genius or singularity of the artist. It is this manner which distinguishes the original of a great master from the most exact copy; and which characterizes the talents of the artists so well, that the smallest part of the picture, and even the least interesting, is sufficient to discover the painter. The distinction between the beautiful and illusive in painting has made Sir Joshua Reynolds, in express terms, recommend a perfection superior to the imitation of nature. "The principle now laid down (says he), that the perfection of the art does not consist in mere imitation, is far from being new or singular. It is, indeed, supported by the general opinion of the enlightened part of mankind. The poets, orators, and rhetoricians of antiquity, are continually enforcing this position, that all the arts receive their perfection from an ideal beauty, superior to what is to be found in individual nature. They are ever referring to the practice of the painters and sculptors of their times, particularly Phidias the favourite artist of antiquity, to illustrate their assertions. As if they could not sufficiently express their admiration of his genius by what they knew, they have recourse to poetical enthusiasm. They call it inspiration; a gift from heaven. The artist is supposed to have ascended the celestial regions to furnish his mind with this perfect idea of beauty. 'He (says Proclus) who takes for his model such forms as nature produces, and confines himself to an exact imitation of them, will never attain to what is perfectly beautiful. For the works of nature are full of disproportion, and fall short of the true standard of beauty. So that Phidias, when he formed his Jupiter, did not copy any object ever presented to his sight; but contemplated only that image which he had conceived in his mind from Homer's description.'

"It is not easy to define in what this great style consists, nor to describe by words the proper means of acquiring it, if the mind of the student should be at all capable of such an acquisition. Could we teach taste or genius by rules, they would be no longer taste and genius. But though there neither are nor can be any precise invariable rules for the exercise or the acquisition of these great qualities; yet we may truly say that they always operate in proportion to our attention in observing the works of nature, to our skill in selecting, and to our care in digesting, methodising, and comparing our observations. There are many beauties in our art that seem at first to lie without the reach of precept, and yet may easily be reduced to practical principles. Experience is all in all; but it is not every one that profits by experience: and most people err not so much from want of capacity to find their object, as from not knowing what object to pursue. This great ideal perfection and beauty are not to be sought in the heavens, but upon the earth. They are about us, and upon every side of us: But the power of discovering what is deformed in nature, or, in other words, what is particular or uncommon, can be acquired only by experience; and the whole beauty and grandeur of the art consists in being able to get

above all singular forms, local customs, particularities, and details of every kind."

Illusion.

After these opinions, however, derived from the practice of the art, and this high authority, it may not be improper to hazard a few observations. Although illusion can be distinguished from many of the most excellent parts of the art taken separately, yet it does not follow that it shall not add in every picture to the beauty of the whole. It is impossible to state it in opposition to design, to composition, to colouring, or to the peculiar manner of a great artist; because all these may exist where there also exists the most perfect illusion. This is evident from the works of art; which have real relieve, and which at the same time are capable of perfection in all those branches, and of showing the peculiar manner of the artist. Again, it appears evident, that *illusion*, properly so called, should be a proper object of attention in painting. We may rate the ideal beauty very high, and with great justice; but it still consists in overcoming the defects in individual objects in nature, and not in departing from the truth of representation. And perhaps it may be alleged, that the impossibility of giving perfect illusion on a plain surface has pushed the greatest masters too far, and made them crowd artificial beauties into their pictures to conceal their want of power to give real ones. It is not improbable, that on this very account the art is less perfect than otherwise it might have been: For in all subjects thought to be impossible, there is not only great room for exertion, but the person carries the art to greater perfection as he comes nearer to show that it may not be impossible. And if the works of Raphael, in point of illusion, are not superior to an ordinary artist, we may be permitted to say that there is great room for improvement in this branch.

SECT. XII. *Of the Costume.*

THE costume in painting corresponds with the unities of time, place, and action, in tragedy and in epic poetry. It is chiefly confined to history painting; and regards the customs of different periods, the manners, the dress, and the colour, of different nations. Great exactness in the costume is scarcely practicable; but too sensible a departure from it denotes unpardonable negligence. It frequently happens that a piece composed of picturesque figures derives considerable advantage from certain liberties which are calculated to please both the artist and the spectator; for the judges of painting are not habitually occupied with the details of ancient and modern history, or profoundly versed in all the circumstances which make a departure from the costume conspicuous. On the other hand, if they were so ignorant as not to understand, or so indifferent as not to regard those circumstances, this branch of the art would be altogether arbitrary. The road of the painter is between these two extremes, not to despise beauty on the one hand, nor probability on the other. But in pursuing this part of the art, it is in vain to seek for perfect models in ancient or modern painting.

"When Raphael in his cartoons introduces monks

Manchester Transactions, vol. iii. p. 564, &c.

and Swiss guards; when he puts into a boat more figures

Costume.

gures than it is evident the boat could actually contain; when in the chastisement of Heliodorus, who attempted to despoil the temple of Jerusalem, Pope Julius II. is depicted as being present; when, in the donation of Constantine in the Vatican, a naked boy is placed conspicuous in the fore-ground, astride upon a dog in the immediate presence of the pope and the emperor; when Venetian senators are introduced while Pope Alexander excommunicates Barbarossa; when Aristotle, Plato, Dante, and Petrarch, are brought together in the school of Athens, to omit the lesser improprieties of shoeless apostles, &c.—every person must acknowledge that such offences as these against truths so obvious, if they do not arise from a defect of understanding, are instances of inexcusable carelessness.

“In like manner, when the same great master paints the dreams of Joseph and his fellow-prisoner in circles over their heads; when similar contrivances to express future events are used by Albani, Pameggiano, and Fuseli—is it not evident that no possibility can make the fiction true; and that real and feigned existences are unnaturally introduced in one narration?”

“When Polydore chooses to represent the death of Cato, and exposes to the spectator the hero of the piece with his bowels gushing out; when Paul Veronese, at a banquet painted with his usual magnificence, places before us a dog gnawing a bone, and a boy making water: however such disgusting circumstances may be forgiven in the *chef d'auteur* of a Michael Angelo, had he represented these instead of the horrible figures of his Day of Judgment, the performance of an inferior artist cannot atone for them.

“So also, when one of the first rate among the modern painters, we mean Paul Veronese, introduces Benedictine monks at the marriage of Cana; when, in a picture of the crucifixion, he puts the Roman soldiers in the jerkins of the 16th century, and adorns their heads with turbans; when Guido, in a painting of Jesus appearing to his mother after his resurrection, places St Charles Borromée in a kind of desk in the back-ground as witness to the interview; when Tintoret, at the miraculous fall of manna, arms the Israelites with fusils; and Corregio appoints St Jerome as the instructor of the child Jesus—common sense revolts at the impropriety; and we are compelled to exclaim, *Quicquid ostendas mihi sic, incredulus odi!*”

“The mythological taste of the learned Poussin is well known; but Rubens seems to claim the merit of having presented to the world a still greater number of supreme absurdities in this learned style: nor is it easy to conceive a more heterogeneous mixture of circumstances, real and imaginary, sacred and profane, than the Luxembourg gallery, and the other works of that great master, perpetually exhibit.

“When so great an authority as Sir Joshua Reynolds* contends for the rejection of common sense in favour of somewhat he terms a *higher sense*; when he laments, indirectly, that art is not in such high estimation with us, as to induce the generals, lawgivers, and kings of modern times, to suffer themselves to be represented naked, as in the days of ancient Greece; when he defends even the ridiculous aberrations from possibility, which the extravagant pencil of Rubens has so plentifully produced—it is not surprising that the

artists of the present day should be led to reject the company of common sense; or that Sir Joshua's performances should furnish examples of his own precepts.

“Mrs Siddons is represented by Sir Joshua in the character (as it is said) of the tragic muse: She is placed in an old-fashioned arm chair; this arm-chair is supported by clouds, suspended in the air; on each side of her head is a figure not unapt to suggest the idea of the attendant imps of an enchantress: of these figures, one is supposed to represent Comedy, and the other Tragedy; Mrs Siddons herself is decently attired in the fashionable habiliments of 20 or 30 years ago.

“If this be a picture of the tragic muse, she ought not to appear in a modern dress, nor ought she to be seated in an old arm chair. If this be a portraiture of Mrs Siddons, she has no business in the clouds, nor has she any thing to do with aerial attendants. If this be Mrs Siddons in the character of the tragic muse, the first set of objections apply; for she is placed in a situation where Mrs Siddons could never be.

“In the death of Dido, Sir Joshua Reynolds introduces her sister, lamenting over the corpse of the unfortunate queen. This is possible; but he has also introduced Atropos cutting Dido's hair with a pair of scissors, a being equally real and apparent in the painting with Dido or her sister. This (continues our author) appears to me a gross offence against mythological probability; nor is it the only offence against the costume with which that picture is chargeable.

“There is one other breach of the costume, however common among painters, more gross and offensive than any of the instances hitherto alleged; we mean the perpetual and unnecessary display of the naked figure. We shall not stay to enquire whether more skill can be shown in painting the human body clothed or unclothed. If the personages introduced in any picture are more naked in the representation than can be justified by the probability of the times, persons, places, or circumstances, it is a breach of the costume proportionate to the deviation. This fault, however, is so common, as hardly to be noticed; so slight indeed, when compared with that general taste for voluptuous imagery and obscene representation, which has so long disgraced the art of painting in every stage of its progress, that science and morality are callous to the slight offence.

“This depravity of imagination, this prostitution of the pencil to the base purposes of lascivious inclination, was a subject of much complaint among the ancients. Nor is there less reason to complain in modern times, that this delightful art, which might be employed in exciting the noblest sentiments, and become subservient to the best interests of society, should so often be exercised upon subjects solely calculated to please the eye of the voluptuary and debauchee. It is hardly possible to pass through any admired collection without meeting with some of these; of which, however excellent the performance may be, the common feelings of decency and morality (if we are neither professed artists nor connoisseurs) prevent us from viewing them without a mixture of disgust.”

Et pudor averfos textit velamine vultus.*

* Abbé de Marj.

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Costume

It is impossible to express how much a picture suffers by such looseness of fancy, and sinks as a bastard of the art in the esteem of good judges. Some people, indeed, are of opinion, that so scrupulous an observance of the costume is apt to hurt pictures, by depriving them of a certain air of truth arising, they think, from those features and habits to which we are accustomed; and which are therefore apt to make a greater impression, than can be expected from things drawn from the remote sources of antiquity; adding withal, that a certain degree of licence has ever been allowed those artists who in their works must make fancy their chief guide. See, say they, the Greeks; that is, the masters of Raphael and Poussin themselves. Do they ever trouble their heads about such niceties? The Rhodian statuary, for example, have not scrupled to represent Laocoon naked; that is, the priest of Apollo naked in the very act of sacrificing to the gods, and that too in presence of a whole people, of the virgins and matrons of Ilium. Now, continue they, if it was allowable in the ancient statuary to neglect probability and decency to such a degree, to have a better opportunity of displaying their skill in the anatomy of the human body; why may it not be allowable in modern painters, the better to attain the end of their art, which is deception, to depart now and then a little from the ancient manners and the too rigorous laws of the costume? But these reasons, we beg leave to observe, are more absurd than they are ingenious. What! are we to draw conclusions from an example, which, far from deciding the dispute, gives occasion to another? The learned are of opinion, that those Rhodian masters would have done much better had they looked out for a subject in which, without offending so much against truth, and even probability, they might have had an equal opportunity of displaying their knowledge of the naked. And certainly no authority or example whatever should tempt us to do any thing contrary to what both decency and the reason of things require, unless we intend, like Carpioni, to represent

Sogni d'infermi, e fole di romanzi.

The dreams of sick men, and the tales of fools.

No: a painter, the better to attain the end of his art, which is deception, ought carefully to avoid mixing the antique with the modern, the domestic with the foreign; things, in short, repugnant to each other, and therefore incapable of gaining credit. A spectator will never be brought to consider himself as actually present at the scene, the representation of which he has before him, unless the circumstances which enter it perfectly agree among themselves, and the field of action, if we may use the expression, in no shape belies the action itself. For instance, the circumstances, or, if you please, the accessories, in a *Finding of Moses*, are not, surely, to represent the borders of a canal planted with rows of poppies, and covered with country-houses in the European taste; but the banks of a great

river shaded with clusters of palm-trees, with a Sphinx or an Anubis in the adjacent fields, and here and there in the back-ground a towering pyramid. And indeed the painter, before he takes either canvass or paper in hand, should on the wings of fancy transport himself to Egypt, to Thebes, or to Rome; and summoning to his imagination the physiognomy, the dress, the plants, the buildings, suitable to his subject, with the particular spot where he has chosen to lay his scene, so manage his pencil, as, by the magic of it, to make the enraptured spectators fancy themselves there along with him.

SECT. XIII. *Of proper Books for a Painter.*

FROM what has been already said, it may be easily gathered, that a painter should be neither illiterate nor unprovided with books. Many are apt to imagine, that the *Iconologia* of Ripa, or some such collection, is alone sufficient for this purpose; and that all the apparatus he stands in need of, may be reduced to a few casts of the remains of antiquity, or rather to what Rembrandt used to call his *antiques*, being nothing more than coats of mail, turbans, sherds of stuff, and all manner of old household trumpery and wearing apparel. Such things, no doubt, are necessary to a painter, and perhaps enough for one who wants only to paint half-lengths, or is willing to confine himself to a few low subjects. But they are by no means sufficient for him who would soar higher; for a painter who would attempt the Universe, and represent it in all its parts, such as it would appear, had not matter proved refractory to the intentions of the sovereign Artist. Such a painter alone is a true, an universal, a perfect painter.—No mortal, indeed, must ever expect to rise to that sublimity; yet all should aspire to it, on the pain of otherwise ever continuing at a very mortifying distance from it: as the orator, who wishes to make a figure in his profession, should propose to himself no less a pattern than that perfect orator described by Tully; nor the courtier, than that perfect courtier delineated by Castiglione. It cannot, therefore, appear surprising, if we insist on the propriety of reckoning a good collection of books as part of such a painter's implements. The Bible, the Greek and Roman historians, the works of Homer that prince of poets, and of Virgil, are the most classical. To these let him add the *Metamorphoses* of Ovid, some of our best poets, the voyage of Pausanias, Vinci, Vasari, and others, upon painting.

It will also be of considerable advantage to him to have a well-chosen collection of drawings by the best masters (D), in order to trace the progress and history of his art, and make himself acquainted with the various styles of painting which have been, and now are, in the greatest vogue. The prince of the Roman school was not ashamed to hang up in his study the drawings of Albert Durer; and spared no pains or expence to acquire

Proper
Books for a
Painter

Algarotti on
Painting.

(D) We have formerly (see ANATOMY, p. 672. column 2.) mentioned a great anatomical work carrying on by Andrew Bell, Esq; in Edinburgh, of the figures of which, as they are engraved under the inspection of so able an anatomist as Mr Fyfe, and with the approbation of Dr Monro, we may at least form a favourable opinion; and if well executed, of which there can be but little doubt, they will unquestionably be of essential service to the painter.

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acquire all the drawings he could meet with that were taken from basso relievos; things which the art of engraving has since rendered so common as to be in every one's hands. This art of multiplying drawings by means of the graver is of the same date, and boasts the same advantages, with the art of printing, by means of which the works of the mind are multiplied, as it were, at one stroke, and dispersed over the whole world.

The sight of fine subjects treated by able masters, and the different forms which the same subjects assume in different hands, cannot fail both of enlightening and enflaming the mind of the young painter. The same may be said of the perusal of good poets and historians, with the particulars and proofs of what they advance; not to mention those ideas and flights of invention, with which the former are wont to clothe, beautify, and exalt every thing they take in hand. Bouchardon, after reading Homer, conceived, to use his own words, that men were three times taller than before, and that the world was enlarged in every respect. It is very probable, that the beautiful thought of covering Agamemnon's face with the skirt of his mantle at the sacrifice of Iphigenia, was suggested to Timantes by the tragedy of Euripides. And the sublime conceit of Raphael, who, in a *Creation* of his, represents God in the immense space, with one hand reaching to the sun and the other to the moon, may be considered as the child of the following words of the Psalmist: *The heavens declare the glory of God, and the firmament sheweth his handy-work.*

This thought of Raphael has been, indeed, censured by Mr Webb. "A God (says this gentleman), extending one hand to the sun, and another to the moon, destroys that idea of immensity which should accompany the work of creation, by reducing it to a world of a few inches." But the opinion of Count Algarotti is very different. "For my part (says that elegant critic), I cannot discover in this painting a world of a few inches, but a world on a much greater scale; a world of millions and millions of miles: and yet this so immense a world, by means of that act of the Godhead, in which with one hand he reaches to the sun, and with the other to the moon, shrinks, in my imagination, to a mere nothing, in respect to the immensity of God himself; which is all that the powers of painting can pretend to. This invention is, though in a contrary sense, of the same kind with that of Timantes, who, to express the enormous size of a sleeping Polyphemus, placed round him some satires measuring the monster's thumb with a thyrsus. Hence Pliny, who relates the fact, takes occasion to tell us, that his works always imply more than they express; and that how great soever he may be in execution, he is still greater in invention: *Atque in omnibus ejus operibus intelligitur plus semper quam pingitur; et cum ars summa sit, ingenium tamen ultra artem est.*" Nat. Hist. lib. xxxv. c. 10.

The perusal of good authors cannot but be very serviceable to a painter in another respect; as, among the great number of subjects afforded by history and poetry, he may expect to meet with many on which his talents may display themselves to the greatest advantage. A painter can never be too nice in the choice

N^o 256.

of his arguments; for on the beauty of them, that of his piece will greatly depend. How much to be pitied, therefore, were our first masters, in being so often obliged to receive their subjects from the hands of simple and illiterate persons! and what is worse, to spend all the riches of their art upon barren or unworthy subjects! Such are the representations of those saints, who, though they never had the least intercourse with each other, and perhaps even lived in different ages, are, notwithstanding, to be introduced, *tete à tete*, as it were, in the same picture. The mechanic of the art may, indeed, display itself on these occasions; but by no means the ideal. The disposition may be good and praise-worthy, as in the works of Cortoni and Lanfranc; but we are not to expect in them either invention or expression, which require for their basis the representation of some fact capable of producing such effects. Who does not, on the bare mention of this abuse, immediately recollect many sad instances of it? such as the famous St Cecilia of Raphael, surrounded by St Paul, St Mary Magdalen, St John, and St Augustin; and the picture of Paolo Veronese, in the vestry of the Nuns of St Zachary at Venice, in which St Francis of Assisium, St Catharine, and St Jerome richly habited in his cardinal's robes, form a ring round the Virgin seated on a throne with the child Jesus in her arms; perhaps the most beautiful and picturesque of all the insipid and insignificant pieces with which Italy abounds. It is very shocking to think, that young painters should be obliged to study their art from such wretched compositions.

The subjects in which the pencil triumphs most, and with which a judicious painter may stock himself by the perusal of good books, are, no doubt, those which are most universally known, which afford the largest field for a display of the passions, and contain the greatest variety of incidents, all concurring, in the same point of time, to form one principal action. Of this the story of Coriolanus besieging Rome, as related by Livy, is a shining example. Nothing can be imagined more beautiful than the scene of action itself, which ought to take in the prætorium in the camp of the Volscians, the Tiber behind it, and the seven hills, among which the towering Capitol is, as it were, to lord it over the rest. It is impossible to conceive a greater variety, than what must appear in that crowd of soldiers, women, and children, all which are to enter the composition; unless, perhaps, it be that of the different passions with which they are severally agitated; some wishing that Coriolanus may raise the siege, others fearing it, others again suspecting it. But the principal groupe forms the picturesque part of the piece. Coriolanus, hastily descending from his tribunal, and hurried on by filial affection, to embrace his mother, stops short through shame, on her crying out to him, Hold! let me first know, if it is a son, or an enemy, I am going to embrace? Thus a painter may impart novelty to the most hackneyed subject, by taking for his guides those authors who possess the happy talent of adding grace and dignity, by their beautiful and sublime descriptions, even to the most common and trifling transactions.

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Proper
Books for a
Painter.

Livy, Dec.
II. lib. 2.

SECT. XIV. *Of the Painter's Balance.*

THE celebrated De Piles, who by his writings has thrown so much light upon painting, in order to assist young painters in forming a right judgment of those masters who hold the first rank in the profession, and to reduce such judgment to the greater precision, be- thought himself of a pictorial balance, by means of which a painter's merit may be weighed with the greatest exactness. This merit he divides into Composition, Design, Colouring, and Expression; and in each of these branches he has assigned to every painter that share to which he thought him intitled, according as he approached more or less the highest degree of excellence and summit of perfection; so that, by summing up the numbers which, standing against each master's name, express his share of merit in each of these branches, we have his total merit or value in the art, and may hence gather what rank one painter holds in regard to another. Several objections, it is true, have been started to this method of calculation, by a famous mathematician of our days, who, among other things, insists, that it is the product of the above numbers multiplied by each other, and not the sum of them, that gives the merit of the artist. But this is not a place to enter into such niceties, nor indeed would the doing of it be of any service to the art. The only thing worth our notice is, whether the original numbers, standing for the painter's merit in the several branches of his art, are such as he is really intitled to, without suffering ourselves to be biased by any partiality, as De Piles has been, in favour of the prince of the Flemish school; the consequence of which, strange as it may appear, is, that in his balance Raphael and Rubens turn out exactly of the same weight.

The idea of the painter's balance is doubtless curious, and therefore deserved to be mentioned; but as the merits of the most eminent painters have been already appretiated under the second section of the historical part of our article, to which we refer, it is needless to be more particular here, or to repeat what has been already treated of at sufficient length.

SECT. XV. *Practical Observations.*

HAVING thus laid down the principles of the art, and ventured to give the student some directions with respect to his studies, we shall conclude this part of the subject with a few observations relative wholly to practice.

And, 1. The young painter must be careful not to be led astray by the ambition of composing easily, or attaining what is called a *masterly handling* of the chalk or the pencil; a pernicious attempt, by which students are excluded from all power of advancing in real excellence. To this attempt, however, young men have not only the frivolous ambition of being thought masterly, inciting them on the one hand, but also their natural sloth tempting them on the other. They are terrified at the prospect before them, and of the toil required to obtain exactness; whilst the lives of the most eminent painters furnish us with examples of the most unceasing industry. When they conceived a subject,

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they first made a variety of sketches; then a finished drawing of the whole; after that a more correct drawing of every separate part, heads, hands, feet, and pieces of drapery; they then painted the picture, and after all retouched it from the life. The pictures thus wrought with such care, now appear like the effects of enchantment, and as if some mighty genius had struck them off at a blow.

But a student is not always advancing because he is employed; he must apply his strength to that part of the art where the real difficulties lie; to that part which distinguishes it as a liberal art, and not by mistaken industry lose his time in that which is merely ornamental. The students, instead of vying with each other who shall have the readiest hand, should be taught to labour who shall have the purest and most correct outline; instead of striving who shall produce the brightest tint, or endeavouring to give the gloss of stuffs so as to make them appear real, let their ambition be directed to contend, who shall dispose his drapery in the most graceful folds, and give the greatest dignity to the human form.

He who endeavours to copy accurately the figure before him, not only acquires a habit of exactness and precision, but is continually advancing in his knowledge of the human figure; and though he seems to superficial observers to make a slower progress, he will be found at last capable of adding (without running into capricious wildness) that grace and beauty which is necessary to be given to his more finished works, and which cannot be got by the moderns, as it was not acquired by the ancients, but by an attentive and well-directed study of the human form.

2. It is, in the next place, a matter of great importance, that the drawings on which the young artist first exercises his talents be of the most excellent kind. Let the profiles, the hands, and the feet given him to copy, be of the best masters, so as to bring his eye and his hand early acquainted with the most elegant forms and the most beautiful proportions. A painter who has early acquired a fine taste, finds it an easy matter to give dignity to the meanest features, while even the works of a Praxiteles or a Glycon are seen to suffer in the hands of another. A vessel will ever retain the scent which it has first contracted.

3. It would be proper also to make the pupil copy some fine heads from the Greek and Roman medals; not so much for the reason just laid down, as to make him acquainted, if we may use the expression, with those personages which in time he may have occasion to introduce into his pieces, and, above all, to improve him early in the art of copying from relief. Hence he will learn the rationale of light and shade, and the nature of that *chiaro-scuro* by which it is, properly speaking, that the various forms of things are distinguished.

There is no danger of studying too much the works of the greatest masters, either in painting or sculpture; but how they may be studied to advantage is an inquiry of great importance. "Some (says Sir Joshua Reynolds), who have never raised their minds to the consideration of the real dignity of the art, and who rate the works of an artist in proportion as they excel or are defective in the mechanical parts, look on theory as something that may enable them to talk,

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See Mai-
ran's re-
marks, in
*Mem. de
l'Acad. des
Sciences.*
1753.

but not to paint better; and, confining themselves entirely to mechanical practice, very assiduously toil in the drudgery of copying, and think they make a rapid progress, while they faithfully exhibit the minutest part of a favourite picture. This appears to me a very tedious, and, I think, a very erroneous method of proceeding. Of every large composition, even of those which are most admired, a great part may be truly said to be common place. This, though it takes up much time in copying, conduces little to improvement. I consider general copying as a delusive kind of industry: the student satisfies himself with the appearance of doing something; he falls into the dangerous habit of imitating without selecting, and of labouring without any determinate object: as it requires no effort of the mind, he sleeps over his work; and those powers of invention and composition which ought particularly to be called out, and put in action, lie torpid, and lose their energy for want of exercise.

"However, as the practice of copying is not entirely to be excluded, since the mechanical practice of painting is learned in some measure by it, let those choice parts only be selected which have recommended the work to notice. If its excellence consists in its general effect, it would be proper to make slight sketches of the machinery and general management of the picture. Those sketches should be kept always by you, for the regulation of your style. Instead of copying the touches of those great masters, copy only their conceptions. Instead of treading in their footsteps, endeavour only to keep the same road. Labour to invent on their general principles and way of thinking. Possess yourself with their spirit. Consider with yourself how a Michael Angelo or a Raphael would have treated this subject, and work yourself into a belief that your picture is to be seen and criticised by them when completed. Even an attempt of this kind will rouse your powers."

The same great master recommends to students to keep their minds fixed on the highest excellencies.— "If you compass them, and compass nothing more,

you are still in the first class. We may regret the innumerable beauties which you may want: you may be very imperfect; but still you are an imperfect person of the highest order.

"I inculcate as frequently as I can your forming yourselves upon great principles and great models.— Your time will be much mispent in every other pursuit. Small excellencies should be viewed, not studied; they ought to be viewed, because nothing ought to escape a painter's observation, but for no other reason.

"There is another caution which I wish to give you. Be as select in those whom you endeavour to please, as in those whom you endeavour to imitate. Without the love of fame you can never do any thing excellent; but by an excessive and undistinguishing thirst after it, you will come to have vulgar views; you will degrade your style; and your taste will be entirely corrupted. It is certain that the lowest style will be the most popular, as it falls within the compass of ignorance itself, and the vulgar will always be pleased with what is natural in the confined and misunderstood sense of the word."

Genius he considers as an improveable talent, never to be destroyed by the most excessive, if well directed, application, and displaying the elegancies of the art in proportion to the number of ideas which have been carefully collected and digested in the mind.

He cautions painters, therefore, in every stage of their progress, to beware of that false opinion, but too prevalent among artists, of the imaginary power of native genius, and its sufficiency in great works.

This opinion, according to the temper of mind it meets with, almost always produces, either a vain confidence or a sluggish despair, both equally fatal to all proficiency. "Study, therefore, the great works of the great masters for ever. Study, as nearly as you can, in the order, in the manner, on the principles on which they studied. Study nature attentively, but always with those masters in your company; consider them as models which you are to imitate, and at the same time as rivals whom you are to combat."

PART II. Of the Different CLASSES of PAINTING.

SECT. I. General Enumeration.

AS all the objects in nature are susceptible of imitation by the pencil, the masters of this art have applied themselves to different subjects, each one as his talents, his taste, or inclination, may have led him.— From whence have arisen the following classes.

I. *History-painting*: which represents the principal events in history sacred and profane, real or fabulous; and to this class belongs *allegorical expression*. These are the most sublime productions of the art; and in which Raphael, Guido, Rubens, Le Brun, &c. have excelled.

II. *Rural-history*; or the representation of a country life, of villages and hamlets, and their inhabitants. This is an inferior class; and in which Teniers, Breughel, Watteau, &c. have great reputation, by rendering it at once pleasing and graceful.

III. *Portrait-painting*; which is an admirable branch of this art, and has engaged the attention of the greatest masters in all ages, as Apelles, Guido, Vandyke, Rembrandt, Regauds, Pesne, Kneller, La Tour, &c.

IV. *Grotesque histories*; as the nocturnal meetings of witches; forceries and incantations; the operations of mountebanks, &c. a sort of painting in which the younger Breughel, Teniers, and others, have exercised their talents with success.

V. *Battle-pieces*; by which Huchtemberg, Wouwerman, &c. have rendered themselves famous.

VI. *Landscapes*; a charming species of painting, that has been treated by masters of the greatest genius in every nation.

VII. *Landscapes diversified with waters*, as rivers, lakes, cataracts, &c.; which require a peculiar talent, to express the water sometimes smooth and transparent,

General
Enumera-
tion.

parent, and at others foaming and rushing furiously along.

VIII. *Sea-pieces*; in which are represented the ocean, harbours, and great rivers; and the vessels, boats, barges, &c. with which they are covered; sometimes in a calm, sometimes with a fresh breeze, and at others in a storm. In this class Backhuysen, Vandervelde, Blome, and many others, have acquired great reputation.

IX. *Night-pieces*; which represent all sorts of objects, either as illuminated by torches, by the flames of a conflagration, or by the light of the moon. Schalck, Vanderneer, Vanderpool, &c. have here excelled.

X. *Living Animals*: A more difficult branch of painting than is commonly imagined; and in which Rosa, Carré, Vandervelde, and many others, have succeeded marvellously well.

XI. *Birds of all kinds*; a very laborious species, and which requires extreme patience minutely to express the infinite variety and delicacy of their plumage.

XII. *Culinary pieces*; which represent all sorts of provisions, and animals without life, &c. A species much inferior to the rest, in which nature never appears to advantage, and which requires only a servile imitation of objects that are but little pleasing. The painting of fishes is naturally referred to this class.

XIII. *Fruit-pieces*, of every kind, imitated from nature.

XIV. *Flower-pieces*; a charming class of painting, where Art in the hands of Huyzum, P. Segerts, Merian, &c. becomes the rival of Nature. *Plants and insects* are usually referred to the painters of flowers, who with them ornament their works.

XV. *Pieces of architecture*; a kind of painting in which the Italians excel all others. Under this class may be comprehended the representations of ruins, sea-ports, streets, and public places; such as are seen in the works of Caneletti, and other able masters.

XVI. *Instruments of music, pieces of furniture*, and other inanimate objects; a trifling species, and in which able painters only accidentally employ their talents.

XVII. *Imitations of bas-reliefs*; a very pleasing kind of painting, and which may be carried by an able hand to a high degree of excellence.

XVIII. *Hunting pieces*: these also require a peculiar talent, as they unite the painting of men, horses, dogs, and game, to that of landscapes.

It will not be expected that we should here give the rules that the painter is to observe in handling each particular subject. What has been said on historical painting (Part I. *) may throw some light on the rest, and the particular rules must be learned from the study of the art itself. Good masters, academies of reputation, and a rational practice, are the sources from whence the young painter must derive the detail of his art. We shall however insert some rules and observations relative to *Landscape* and *Portrait*; these, with *History-painting* (already pretty fully treated), forming the principal branches of the art.

SECT. II. Of Landscapes.

LANDSCAPE-painting includes every object that the

country presents: and is distinguished into the *heroic*, and the *pastoral* or *rural*; of which indeed all other styles are but mixtures.

The *heroic style* is a composition of objects, which in their kinds draw both from art and nature every thing that is great and extraordinary in either. The situations are perfectly agreeable and surprising. The only buildings are temples, pyramids, ancient places of burial, altars consecrated to the divinities, pleasure-houses of regular architecture; and if nature appear not there as we every day casually see her, she is at least represented as we think she ought to be. This style is an agreeable illusion, and a sort of enchantment, when handled by a man of fine genius and a good understanding, as Poussin was, who has so happily expressed it. But if, in the course of this style, the painter has not talent enough to maintain the sublime, he is often in danger of falling into the childish manner.

The *rural style* is a representation of countries, rather abandoned to the caprice of nature, than cultivated: we there see nature simple, without ornament, and without artifice; but with all those graces wherewith she adorns herself much more when left to herself than when constrained by art.

In this style, situations bear all sorts of varieties: sometimes they are very extensive and open, to contain the flocks of the shepherds; at others very wild, for the retreat of solitary persons, and a cover for wild beasts.

It rarely happens that a painter has a genius extensive enough to embrace all the parts of painting: there is commonly some one part that pre-engages our choice, and so fills our mind, that we forget the pains that are due to the other parts; and we seldom fail to see, that those whose inclination leads them to the heroic style, think they have done all, when they have introduced into their compositions such noble objects as will raise the imagination, without ever giving themselves the trouble to study the effects of good colouring. Those, on the other hand, who practise the pastoral, apply closely to colouring, in order to represent truth more lively. Both these styles have their sectaries and partisans. Those who follow the heroic, supply by their imagination what it wants of truth, and they look no farther.

As a counterbalance to heroic landscape, it would be proper to put into the pastoral, besides a great character of truth, some affecting, extraordinary, but probable effect of nature, as was Titian's custom.

There is an infinity of pieces wherein both these styles happily meet; and which of the two has the ascendant, will appear from what we have been just observing of their respective properties. The chief parts of landscapes are, their openings or situations, accidents, skies and clouds, offskips and mountains, verdure or turfing, rocks, grounds, or lands, terraces, fabrics, waters, fore-grounds, plants, figures, and trees; of all which in their places.

Of Openings or Situations. The word *situ*, or situation, signifies the "view, prospect, or opening of a country." It is derived from the Italian word *sito*; and our painters have brought it into use, either because they were used to it in Italy, or because, as we think, they found it to be very expressive.

Situations ought to be well put together; and so dis-

* In the sections of Invention and Disposition.

engaged in their make, that the conjunction of grounds may not seem to be obstructed though we should see but a part of them.

Situations are various, and represented according to the country the painter is thinking of: as either open or close, mountainous or watery, tilled and inhabited, or wild and lonely; or, in fine, variegated by a prudent mixture of some of these. But if the painter be obliged to imitate nature in a flat and regular country, he must make it agreeable by a good disposition of the *claro-obscuro*, and such pleasing colouring as may make one soil unite with another.

It is certain, that extraordinary situations are very pleasing, and cheer the imagination by the novelty and beauty of their makes, even when the local colouring is but moderately performed: because, at worst, such pictures are only looked on as unfinished, and wanting to be completed by some skilful hand in colouring; whereas common situations and objects require good colouring and absolute finishing, in order to please. It was only by these properties that Claude Lorrain has made amends for his insipid choice in most of his situations. But in whatever manner that part be executed, one of the best ways to make it valuable, and even to multiply and vary it without altering its form, is properly to imagine some ingenious accident in it.

Of Accidents. An accident in painting is an obstruction of the sun's light by the interposition of clouds, in such manner, that some parts of the earth shall be in light and others in shade, which, according to the motion of the clouds, succeed each other, and produce such wonderful effects and changes of the *claro-obscuro*, as seem to create so many new situations. This is daily observed in nature. And as this newness of situations is grounded only on the shapes of the clouds, and their motions, which are very inconstant and unequal, it follows, that these accidents are arbitrary; and a painter of genius may dispose them to his own advantage when he thinks fit to use them: For he is not absolutely obliged to do it; and there have been some able landscape-painters who have never practised it, either through fear or custom, as Claude Lorrain and some others.

Of the Sky and Clouds. The sky, in painters terms, is the ethereal part over our heads; but more particularly the air in which we breathe, and that where clouds and storms are engendered. Its colour is blue, growing clearer as it approaches the earth, because of the interposition of vapours arising between the eye and the horizon; which, being penetrated by the light, communicates it to objects in a greater or lesser degree, as they are more or less remote.

But we must observe, that this light being either yellow or reddish in the evening, at sunset, these same objects partake not only of the light, but of the colour: thus the yellow light mixing with the blue, which is the natural colour of the sky, alters it, and gives it a tint more or less greenish, as the yellowness of the light is more or less deep.

This observation is general and infallible: but there is an infinity of particular ones, which the painter must make upon the natural, with his pencil in his hand, when occasion offers; for there are very fine and singular effects appearing in the sky, which it is diffi-

cult to make one conceive by physical reasons. Who can tell, for example, why we see, in the bright part of some clouds, a fine red, when the source of the light which plays upon them is a most lively and distinguishing yellow? Who can account for the different reds seen in different clouds, at the very moment that these reds receive the light but in one place? for these colours and surprising appearances seem to have no relation to the rainbow, a phenomenon for which the philosopher pretends to give solid reasons.

These effects are all seen in the evening when the weather is inclining to change, either before a storm, or after it, when it is not quite gone, but has left some remains of it to draw our attention.

The property of clouds is to be thin and airy, both in shape and colour: their shapes, though infinite, must be studied and chosen after nature, at such times as they appear fine. To make them look thin, we ought to make their grounds unite thinly with them, especially near their extremities, as if they were transparent: And if we would have them thick, their reflections must be so managed, as, without destroying their thinness, they may seem to wind and unite, if necessary, with the clouds that are next to them. Little clouds often discover a little manner, and seldom have a good effect, unless when, being near each other, they seem altogether to make but one object.

In short, the character of the sky is to be luminous; and, as it is even the source of light, every thing that is upon the earth must yield to it in brightness: If, however, there is any thing that comes near it in light, it must be waters, and polished bodies which are susceptible of luminous reflections.

But whilst the painter makes the sky luminous, he must not represent it always shining throughout.

On the contrary, he must contrive his light so, that the greatest part of it may fall only upon one place: and, to make it more apparent, he must take as much care as possible to put it in opposition to some terrestrial object, that may render it more lively by its dark colour; as a tree, tower, or some other building that is a little high.

This principal light might also be heightened, by a certain disposition of clouds having a supposed light, or a light ingeniously inclosed between clouds, whose sweet obscurity spreads itself by little and little on all hands. We have a great many examples of this in the Flemish school, which best understood landscape; as Paul Bril, Brugel, Saveri: And the Sadeliers and Merian's prints give a clear idea of it, and wonderfully awaken the genius of those who have the principles of the *claro-scuro*.

Of Offskips and Mountains. Offskips have a near affinity with the sky; it is the sky which determines either the force or faintness of them. They are darkest when the sky is most loaded, and brightest when it is most clear. They sometimes intermix their shapes and lights; and there are times, and countries, where the clouds pass between the mountains, whose tops rise and appear above them. Mountains that are high, and covered with snow, are very proper to produce extraordinary effects in the offskip, which are advantageous to the painter, and pleasing to the spectator.

The disposition of offskips is arbitrary; let them only

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only agree with the whole together of the picture, and the nature of the country we would represent. They are usually blue, because of the interposition of air between them and the eye: but they lose this colour by degrees, as they come nearer the eye, and so take that which is natural to the objects.

In distancing mountains, we must observe to join them insensibly by the roundings off, which the reflections make probable; and must, among other things, avoid a certain edginess in their extremities, which makes them appear in slices, as if cut with scissars, and stuck upon the cloth.

We must further observe, that the air, at the feet of mountains, being charged with vapours, is more susceptible of light than at their tops. In this case, we suppose the main light to be set reasonably high, and to enlighten the mountains equally, or that the clouds deprive them of the light of the sun. But if we suppose the main light to be very low, and to strike the mountains, then their tops will be strongly enlightened, as well as every thing else in the same degree of light.

Though the forms of things diminish in bigness, and colours lose their strength, in proportion as they recede from the first plan of the picture, to the most remote offskip, as we observe in nature and common practice; yet this does not exclude the use of the accidents. These contribute greatly to the wonderful in landscape, when they are properly introduced, and when the artist has a just idea of their good effects.

Of Verdure, or Turfing. By turfing is meant the greenness with which the herbs colour the ground: This is done several ways; and the diversity proceeds not only from the nature of plants, which, for the most part, have their particular verdurs, but also from the change of seasons, and the colour of the earth, when the herbs are but thin sown. By this variety, a painter may choose or unite, in the same tract of land, several sorts of greens, intermixed and blended together, which are often of great service to those who know how to use them; because this diversity of greens, as it is often found in nature, gives a character of truth to those parts, where it is properly used. There is a wonderful example of this part of landscape, in the view of Mechlin, by Rubens.

Of Rocks. Though rocks have all sorts of shapes, and participate of all colours, yet there are, in their diversity, certain characters which cannot be well expressed without having recourse to nature. Some are in banks, and set off with beds of shrubs; others in huge blocks, either projecting or falling back; others consist of large broken parts, contiguous to each other; and others, in short, of an enormous size, all in one stone, either naturally, as free-stone, or else through the injuries of time, which in the course of many ages has worn away their marks of separation. But, whatever their form be, they are usually set out with clefts, breaks, hollows, bushes, moss, and the stains of time; and these particulars, well managed, create a certain idea of truth.

Rocks are of themselves gloomy, and only proper for solitudes: but where accompanied with bushes, they inspire a fresh air; and, when they have waters, either proceeding from, or washing them, they give

an infinite pleasure, and seem to have a soul which animates them, and makes them sociable.

Of Grounds or Lands. A ground or land, in painters terms, is a certain distinct piece of land, which is neither too woody nor hilly. Grounds contribute, more than any thing, to the gradation and distancing of landscape; because they follow one another, either in shape, or in the *claro-obscuro*, or in their variety of colouring, or by some insensible conjunction of one with another.

Multiplicity of grounds, though it be often contrary to grand manner, does not quite destroy it; for, besides the extent of country which it exhibits, it is susceptible of the accidents we have mentioned, and which, with good management, have a fine effect.

There is one nicety to be observed in grounds, which is, that in order to characterize them well, care must be taken, that the trees in them have a different verdure and different colours from those grounds; though this difference, withal, must not be too apparent.

Of Terraces. A terrace, in painting, is a piece of ground, either quite naked or having very little herbage, like great roads and places often frequented. They are of use chiefly in the foregrounds of a picture, where they ought to be very spacious and open, and accompanied, if we think fit, with some accidental verdure, and also with some stones, which, if placed with judgment, give a terrace a greater air of probability.

Of Buildings. Painters mean by buildings any structures they generally represent, but chiefly such as are of a regular architecture, or at least are most conspicuous. Thus building is not so proper a name for the houses of country-people, or the cottages of shepherds, which are introduced into the *rural* taste, as for regular and showy edifices, which are always brought into the *heroic*.

Buildings in general are a great ornament in landscapes, even when they are Gothic, or appear partly inhabited and partly ruinous: they raise the imagination by the use they are thought to be designed for; as appears from ancient towers, which seem to have been the habitations of fairies, and are now retreats for shepherds and owls.

Poussin has very elegantly handled the Roman manner of architecture in his works, as Bourdon has done the Gothic; which, however Gothic, fails not to give a sublime air to his landscapes. Little Bernard has introduced into his sacred history what may be called a Babylonian manner; which, extraordinary as it is, has its grandeur and magnificence. Nor ought such pieces of architecture to be quite rejected: they raise the imagination; and perhaps would succeed in the heroic style, if they were placed among half-distant objects, and if we knew how to use them properly.

Of Waters. Much of the spirit of landscape is owing to the waters which are introduced in it. They appear in divers manners; sometimes impetuous, as when a storm makes them overflow their banks; at other times rebounding, as by the fall of a rock; at other times, through unusual pressure, gushing out and dividing into an infinity of silver streams, whose motion and murmuring agreeably deceive both the eye and

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ear; at other times calm and purling in a sandy bed; at other times so still and standing, as to become a faithful looking-glass, which doubles all the objects that are opposite to it; and in this state they have more life than in the most violent agitation. Consult Bourdon's works, or at least his prints, on this subject: he is one of those who have treated of waters with the greatest spirit and best genius.

Waters are not proper for every situation: but to express them well, the artist ought to be perfect master of the exactness of watery reflections; because they only make painted water appear as real: for practice alone, without exactness, destroys the effect, and abates the pleasure of the eye. The rule for these reflections is very easy, and therefore the painter is the less pardonable for neglecting it.

But it must be observed, that though water be as a looking-glass, yet it does not faithfully represent objects but when it is still; for if it be in any motion, either in a natural course or by the driving of the wind, its surface, becoming uneven, receives on its surges such lights and shades as, mixing with the appearance of the objects, confound both their shapes and colours.

Of the Foreground of a Picture. As it is the part of the foreground to usher the eye into the piece, great care must be taken that the eye meet with good reception; sometimes by the opening of a fine terrace, whose design and workmanship may be equally curious; sometimes by a variety of well-distinguished plants, and those sometimes flowered; and at other times, by figures in a lively taste, or other objects, either admirable for their novelty or introduced as by chance.

In a word, the artist cannot too much study his foreground objects, since they attract the eye, impress the first character of truth, and greatly contribute to make the artifice of a picture successful, and to anticipate our esteem for the whole work.

Of Plants. Plants are not always necessary in foregrounds, because, as we have observed, there are several ways of making those grounds agreeable. But if we resolve to draw plants there, we ought to paint them exactly after the life; or at least, among such as we paint practically, there ought to be some more finished than the rest, and whose kinds may be distinguished by the difference of design and colouring, to the end that, by a probable supposition, they may give the others a character of truth. What has been said here of plants may be applied to the branches and barks of trees.

Of Figures. In composing landscape, the artist may have intended to give it a character agreeable to the subject he has chosen, and which his figures ought to represent. He may also, and it commonly happens, have only thought of his figures, after finishing his landscape. The truth is, the figures in most landscapes are made rather to accompany than to suit them.

It is true, there are landscapes so disposed and situated, as to require only passing figures; which several good masters, each in his style, have introduced, as Poussin in the heroic, and Fouquier in the rural, with all probability and grace. It is true also, that resting figures have been made to appear inwardly active. And these two different ways of treating figures are not to be blamed, because they act equally, though

in a different manner. It is rather inaction that ought to be blamed in figures; for in this condition, which robs them of all connection with the landscape, they appear to be pasted on. But without obstructing the painter's liberty in this respect, undoubtedly the best way to make figures valuable is, to make them so to agree with the character of the landscape, that it may seem to have been made purely for the figures. We would not have them either insipid or indifferent, but to represent some little subject to awaken the spectator's attention, or else to give the picture a name of distinction among the curious.

Great care must be taken to proportion the size of the figures to the bigness of the trees, and other objects of the landscape. If they be too large, the picture will discover a little manner; and if too small, they will have the air of pigmies; which will destroy the worth of them, and make the landscape look enormous. There is, however, a greater inconvenience in making figures too large than too small; because the latter at least gives an air of greatness to all the rest. But as landscape figures are generally small, they must be touched with spirit, and such lively figures as will attract, and yet preserve probability and a general union. The artist must, in fine, remember, that as the figures chiefly give life to a landscape, they must be dispersed as conveniently as possible.

Of Trees. The beauty of trees is perhaps one of the greatest ornaments of landscape; on account of the variety of their kinds, and their freshness, but chiefly their lightness, which makes them seem, as being exposed to the air, to be always in motion.

Though diversity be pleasing in all the objects of landscape, it is chiefly in trees that it shows its greatest beauty. Landscape considers both their kinds and their forms. Their kinds require the painter's particular study and attention, in order to distinguish them from each other; for we must be able at first sight to discover which are oaks, elms, firs, sycamores, poplars, willows, pines, and other such trees, which, by a specific colour, or touching, are distinguishable from all other kinds. This study is too large to be acquired in all its extent; and, indeed, few painters have attained such a competent exactness in it as their art requires. But it is evident, that those who come nearest to perfection in it, will make their works infinitely pleasing, and gain a great name.

Besides the variety which is found in each kind of tree, there is in all trees a general variety. This is observed in the different manners in which their branches are disposed by a sport of nature; which takes delight in making some very vigorous and thick, others more dry and thin; some more green, others more red or yellow. The excellence of practice lies in the mixture of these varieties: but if the artist can distinguish the sorts but indifferently, he ought at least to vary their makes and colours; because repetition in landscape is as tiresome to the eye, as monotony in discourse is to the ear.

The variety of their makes is so great, that the painter would be inexcusable not to put it in practice upon occasion, especially when he finds it necessary to awaken the spectator's attention; for, among trees, we discover the young and the old, the open and close, tapering and squat, bending upwards and downwards, stooping

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stooping and shooting: in short, the variety is rather to be conceived than expressed. For instance, the character of young trees is, to have long slender branches, few in number, but well set out; boughs well divided, and the foliage vigorous and well shaped: whereas, in old trees, the branches are short, stocky, thick, and numerous; the tufts blunt, and the foliage unequal and ill shaped: but a little observation and genius will make us perfectly sensible of these particulars.

In the various makes of trees, there must also be a distribution of branches, that has a just relation to, and probable connection with, the boughs or tufts, so as mutually to assist each other in giving the tree an appearance of thickness and of truth. But, whatever their natures or manners of branching be, let it be remembered, that the handling must be lively and thin, in order to preserve the spirit of their characters.

Trees likewise vary in their barks, which are commonly grey; but this grey, which in thick air, and low and marshy places, looks blackish, appears lighter in a clear air: and it often happens, in dry places, that the bark gathers a thin moss, which makes it look quite yellow; so that, to make the bark of a tree apparent, the painter may suppose it to be light upon a dark ground, and dark on a light one.

The observation of the different barks merits a particular attention; for it will appear, that, in hard woods, age chaps them, and thereby gives them a sort of embroidery; and that, in proportion as they grow old, these chaps grow more deep. And other accidents in barks may arise either from moisture, or dryness, or green mosses, or white stains of several trees.

The barks of white woods will also afford much matter for practice, if their diversity be duly studied; and this consideration leads us to say something of the study of landscape.

Of the Study of Landscape. The study of landscape may be considered either with respect to beginners, or to those who have made some advances in it.

Beginners will find, in practice, that the chief trouble of landscape lies in handling trees; and it is not only in practice, but also in speculation, that trees are the most difficult part of landscape, as they are its greatest ornament. But it is only proposed here, to give beginners an idea of trees in general, and to show them how to express them well. It would be needless to point out to them the common effects of trees and plants, because they are obvious to every one; yet there are some things, which, though not unknown, deserve our reflection. We know, for instance, that all trees require air, some more, some less, as the chief cause of their vegetation and production; and for this reason, all trees (except the cypress, and some others of the same kind) separate in their growth from one another and from other strange bodies as much as possible, and their branches and foliage do the same: wherefore, to give them that air and thinness, which is their principal character, the branches, boughs, and foliage, must appear to fly from each other, to proceed from opposite parts, and be well divided. And all this without order; as if chance aided nature in the fanciful diversity. But to say particularly how these trunks, branches, and foliages, ought to be distributed, would be needless, and only

a description of the works of great masters: a little reflection on nature will be of more service than all that can be said on this head. By great masters, we mean such as have published prints; for those will give better ideas to young copyists than even the paintings themselves.

Among the many great masters of all schools, De Piles prefers Titian's wooden prints, where the trees are well shaped; and those which Cornelius Cort and Agostino Carracci have engraved. And he asserts, that beginners can do no better than contract, above all things, an habit of imitating the touches of these great masters, and of considering at the same time the perspective of the branches and foliages, and observing how they appear, either when rising and seen from below, or when sinking and seen from above, or when fronting and viewed from a point, or when they appear in profile; and, in a word, when set in the various views in which nature presents them, without altering their characters.

After having studied and copied, with the pen or crayon, first the prints, and then the designs of Titian and Carracci, the student should imitate with the pencil those touches which they have most distinctly specified, if their paintings can be procured: but since they are scarce, others should be got which have a good character for their touching; as those of Fouquier, who is a most excellent model: Paul Bril, Breugel, and Bourdon, are also very good; their touching is neat, lively, and thin.

After having duly weighed the nature of trees, their spread and order, and the disposition of their branches, the artist must get a lively idea of them, in order to keep up the spirit of them throughout, either by making them apparent and distinct in the foregrounds, or obscure and confused in proportion to their distance.

After having thus gained some knowledge in good manner, it will next be proper to study after nature, and to choose and rectify it according to the idea which the aforesaid great masters had of it. As to perfection, it can only be expected from long practice and perseverance. On the whole, it is proper for those who have an inclination for landscape, above all things to take the proper methods for beginning it well.

As for those who have made some advances in this part of painting, it is proper they should collect the necessary materials for their further improvement, and study those objects at least which they shall have most frequent occasion to represent.

Painters usually comprise, under the word *study*, any thing whatever which they either design or paint separately after the life; whether figures, heads, feet, hands, draperies, animals, mountains, trees, plants, flowers, fruits, or whatever may confirm them in the just imitation of nature: the drawing of these things is what they call *study*; whether they be for instruction in design, or only to assure them of the truth, and to perfect their work. In fact, this word *study* is the more properly used by painters, as in the diversity of nature they are daily making new discoveries, and confirming themselves in what they already know.

As the landscape-painter need only study such objects as are to be met with in the country, we would recommend

recommend to him some order, that his drawings may be always at hand when he wants them. For instance, he should copy after nature, on separate papers, the different effects of trees in general, and the different effects of each kind in particular, with their trunks, foliage, and colours. He should also take the same method with some sorts of plants, because their variety is a great ornament to terraces on fore-grounds. He ought likewise to study the effects of the sky in the several times of the day and seasons of the year, in the various dispositions of clouds, both in serene, thundering, and stormy weather; and in the offskip, the several sorts of rocks, waters, and other principal objects.

These drawings, which may be made at different times, should be collected together; and all that relate to one matter be put into a book, to which the artist may have recourse at any time for what he wants.

Now, if the fine effects of nature, whether in shape or colour, whether for an entire picture or a part of one, be the artist's study; and if the difficulty lies in choosing those effects well, he must for this purpose be born with good sense, good taste, and a fine genius; and this genius must be cultivated by the observations which ought to be made on the works of the best masters, how they choose nature, and how, while they corrected her, according to their art, they preserved her character. With these advantages, derived from nature and perfected by art, the painter cannot fail to make a good choice; and, by distinguishing between the good and the bad, must needs find great instruction even from the most common things.

To improve themselves in this kind of studies, painters have taken several methods.

There are some artists who have designed after nature, and in the open fields; and have there quite finished those parts which they had chosen, but without adding any colour to them.

Others have drawn, in oil colours, in a middle-tint, on strong paper; and found this method convenient, because, the colours sinking, they could put colour on colour, though different from each other. For this purpose they took with them a flat box, which commodiously held their pallet, pencils, oil, and colours. This method, which indeed requires several implements, is doubtless the best for drawing nature more particularly, and with greater exactness, especially if, after the work be dry and varnished, the artist return to the place where he drew, and retouch the principal things after nature.

Others have only drawn the outlines of objects, and slightly washed them in colours near the life, for the ease of their memory. Others have attentively observed such parts as they had a mind to retain, and contented themselves with committing them to their memory, which upon occasion gave them a faithful account of them. Others have made drawings in pastel and wash together. Others, with more curiosity and patience, have gone several times to the places which were to their taste: the first time they only made choice of the parts, and drew them correctly; and the other times were spent in observing the variety of colouring, and its alterations through change of light.

Now these several methods are very good, and each may be practised as best suits the student and his temper.

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per: but they require the necessities of painting, as colours, pencils, pastils, and leisure. Nature, however, at certain times, presents extraordinary but transient beauties, and such as can be of no service to the artist who has not as much time as is necessary to imitate what he admires. The best way, perhaps, to make advantage of such momentary occasions, is this:

The painter being provided with a quire of paper, and a black-lead pencil, let him quickly, but slightly, design what he sees extraordinary; and, to remember the colouring, let him mark the principal parts with characters, which he may explain at the bottom of the paper, as far as is necessary for himself to understand them: A cloud, for instance, may be marked A, another cloud B, a light C, a mountain D, a terrace E, and so on. And having repeated these letters at the bottom of the paper, let him write against each that it is of such or such a colour; or for greater brevity, only *blue, red, violet, grey, &c.* or any other shorter abbreviation. After this, he must go to painting as soon as possible; otherwise most of what he has observed will, in a little time, slip out of his memory. This method is the more useful, as it not only prevents our losing an infinity of sudden and transitory beauties, but also helps, by means of the afore-said marks and characters, to perfect the other methods we have mentioned.

If it be asked, Which is the properest time for these studies? the answer is, That nature should be studied at all times, because she is to be represented at all seasons; but autumn yields the most plentiful harvest for her fine effects: the mildness of that season, the beauty of the sky, the richness of the earth, and the variety of objects, are powerful inducements with the painter to make the proper inquiries for improving his genius and perfecting his art.

But as we cannot see or observe every thing, it is very commendable to make use of other men's studies, and to look upon them as if they were our own. Raphael sent some young men into Greece to design such things as he thought would be of service to him, and accordingly made use of them to as good purpose as if he himself had designed them on the spot: for this, Raphael is so far from deserving censure, that he ought, on the contrary, to be commended; as an example, that painters ought to leave no way untried for improving in their professions. The landscape-painter may, accordingly, make use of the works of all those who have excelled in any kind, in order to acquire a good manner; like the bees, which gather their variety of honey from different flowers.

General Remarks on Landscapes. As the general rules of painting are the basis of all the several kinds of it, we must refer the landscape-painter to them, or rather suppose him to be well acquainted with them. We shall here only make some general remarks on this kind of painting.

I. Landscape supposes the knowledge and practice of the principal rules in *perspective*, in order to maintain probability.

II. The nigher the leaves of trees are to the earth, the larger they are, and the greener; as being aptest to receive, in abundance, the sap which nourishes them: and the upper branches begin first to take the redness

Landscapes. redness or yellowness which colours them in autumn.

But it is otherwise in plants; for their stocks renew all the year round, and their leaves succeed one another, at a considerable distance of time, insomuch that nature, employed in producing new leaves to adorn the stock as it rises, does by degrees desert the under ones; which, having first performed their office, are the first that die: but this effect is more visible in some than in others.

III. The under parts of all leaves are of a brighter green than the upper, and almost always incline to the silverish; and those which are wind-shaken are known from others by that colour: but if we view them from beneath, when penetrated by the sun's rays, they discover such a fine and lively green as is far beyond all comparison.

IV. There are five principal things which give spirit to landscape, viz. figures, animals, waters, wind-shaken trees, and thinness of pencilling; to which add smoke, when there is occasion to introduce it.

V. When one colour predominates throughout a landscape, as one green in spring, or one red in autumn, the piece will look either as of one colour, or else as unfinished. We have seen many of Bourdon's landscapes, which, by handling the corn one way throughout, have lost much of their beauty, though the situations and waters were very pleasant. The ingenious painter must endeavour to correct, and, as they say, redeem the harsh unsightly colouring of winter and spring by means of figures, waters, and buildings; for summer and autumn subjects are of themselves capable of great variety.

VI. Titian and Carrache are the best models for inspiring good taste, and leading the painter into a good track, with regard to forms and colours. He must use all his efforts to gain a just idea of the principles which those great men have left us in their works; and to have his imagination filled with them, if he would advance by degrees towards that perfection which the artist should always have in view.

VII. The landscapes of these two masters teach us a great many things, of which discourse can give us no exact idea, nor any general principle. Which way, for example, can the measures of trees in general be determined, as we determine those of the human body? The tree has no settled proportions; most of its beauty lies in the contrast of its branches, an unequal distribution of boughs, and, in short, a kind of whimsical variety, which nature delights in, and of which the painter becomes a judge when he has thoroughly relished the works of the two masters aforesaid. But we must say, in Titian's praise, that the path he struck out is the surest; because he has exactly imitated nature in its variety with an exquisite taste, and fine colouring: whereas Carrache, though an able artist, has not, more than others, been free from manner in his landscapes.

VIII. One of the greatest perfections of landscape, in the variety it represents, is a faithful imitation of each particular character: as its greatest fault is a licentious practice, which brings us to do things by rote.

IX. Among those things which are painted practically, we ought to intermix some done after nature, to induce the spectator to believe that all are so.

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X. As there are styles of thought, so there are also styles of execution. We have handled the two relating to thought, viz. the heroic and pastoral; and find that there are two also with regard to execution, viz. the firm style, and the polished; these two concern the pencil, and the more or less ingenious way of conducting it. The firm style gives life to work, and excuse for bad choice; and the polished finishes and brightens every thing; it leaves no employment for the spectator's imagination, which pleases itself in discovering and finishing things which it ascribes to the artist, tho' in fact they proceed only from itself. The polished style degenerates into the soft and dull, if not supported by a good opening or situation; but when those two characters meet, the picture is fine.

SECT. III. *Of Portraiture.*

If painting be an imitation of nature, it is doubly so in a portrait; which not only represents a man in general, but such an one as may be distinguished from all others. And as the greatest perfection of a portrait is extreme likeness, so the greatest of its faults is to resemble a person for whom it was not made; since there are not in the world two persons quite like one another. But before we proceed to the particulars which let us into the knowledge of this imitation, it is necessary, for shortening this part of our subject, to attend to some general propositions.

I. Imitation is the essence of painting: and good choice is to this essence what the virtues are to a man; they raise the value of it. For this reason, it is extremely the painter's interest to choose none but good heads, or favourable moments for drawing them, and such positions as may supply the want of a fine natural.

II. There are views of the natural, more or less advantageous; all depends upon turning it well, and taking it in the favourable moment.

III. There is not a single person in the world who has not a peculiar character both in body and face.

IV. Simple and genuine nature is more proper for imitation; and is a better choice than nature much formed, and embellished too artificially.

V. To adorn nature too much is doing it a violence; and the action which attends it can never be free when its ornaments are not easy. In short, in proportion as we adorn nature, we make it degenerate from itself, and bring it down to art.

VI. Some means are more advantageous than others to come at the same end.

VII. We must not only imitate what we do see in nature, but also what we may possibly see that is advantageous in art.

VIII. Things are valuable by comparison; and it is only by this we are enabled to make a right judgment of them.

IX. Painters easily accustom themselves to their own tints, and the manner of their masters: and after this habit is rooted in them, they view nature not as she really is, but as they are used to paint her.

X. It is very difficult to make a picture, the figures of which are as big as the life, to have its effect near as at a distance. A learned picture pleases the ignorant only when it is at some distance; but judges

Portraiture will admire its artifice near, and its effect at a distance.

XI. Knowledge makes work pleasant and easy. The traveller who knows his road, comes to his journey's end with more speed and certainty than he who inquires and gropes it out.

XII. It is proper, before we begin a work, to meditate upon it, and to make a nice coloured sketch of it, for our own satisfaction, and an help to the memory.

We cannot too much reflect on these propositions; and it is necessary to be well acquainted with them, that they may present themselves to our mind, of their own accord, without our being at the trouble to recal them to our memory when we are at work.

There are four things necessary to make a portrait perfect; *air, colouring, attitude, and dress.*

Of Air. The air respects the lines of the face, the head-attire, and the size.

The lines of the face depend upon exactness of draught, and agreement of the parts; which all together must represent the physiognomy of the person painted in such a manner, that the picture of his body may seem to be also that of his mind.

It is not exactness of design in portraits that gives spirit and true air, so much as the agreement of the parts at the very moment when the disposition and temperament of the sitter are to be hit off. We see several portraits which, though correctly designed, have a cold, languishing, and stupid air; whilst others, less correct in design, strike us, however, at first sight with the sitter's character.

Few painters have been careful enough to put the parts well together: Sometimes the mouth is smiling, and the eyes are sad; at other times, the eyes are cheerful, and the cheeks lank: by which means their work has a false air, and looks unnatural. We ought therefore to remember, that, when the sitter puts on a smiling air, the eyes close, the corners of the mouth draw up towards the nostrils, the cheeks swell, and the eyebrows widen: but in a melancholy air, these parts have a contrary effect.

The eye brows, being raised, give a grave and noble air; but if arched, an air of astonishment.

Of all the parts of the face, that which contributes most to likeness is the nose; it is therefore of great moment to set and draw it well.

Though the hair of the head seems to be part of the dress which is capable of various forms without altering the air of the face; yet the head-attire which one has been most accustomed to creates such a likeness, that we scarce know a familiar acquaintance on his putting on a periwig somewhat different from that which he used to wear. It is necessary therefore, as far as possible, to take the air of the head-ornament, and make it accompany and set off that of the face, if there be no reason to the contrary.

As to the stature, it contributes so much to likeness, that we very often know people without seeing their face: It is therefore extremely proper to draw the size after the sitter himself, and in such an attitude as we think fit; which was Vandyke's method. Here let us remark, that, in sitting, the person appears to be of a less free make, through the heaving of his shoulders; wherefore, to adjust his size, it is proper to make him

stand for a small time, swaying in the posture we would give him, and then make our observation. But here occurs a difficulty, which we shall endeavour to examine: "Whether it is proper, in portraiture, to correct the defects of nature?"

Likeness being the essence of portraiture, it would seem that we ought to imitate defects as well as beauties, since by this means the imitation will be more complete: It would be even hard to prove the contrary to one who would undertake the defence of this position. But ladies and gentlemen do not much approve of those painters who entertain such sentiments, and put them in practice. It is certain that some complaisance in this respect is due to them; and there is little doubt but their pictures may be made to resemble, without displeasing them; for the effectual likeness is a just agreement of the parts that are painted with those of nature; so that we may be at no loss to know the air of the face, and the temper of the person, whose picture is before us. All deformities, therefore, when the air and temper may be discovered without them, ought to be either corrected or omitted in women and young mens portraits. A nose somewhat awry may be helped, or a shrivelled neck, or high shoulders, adapted to a good air, without going from one extreme to another. But this must be done with great discretion; for, by endeavouring to correct nature too much, we insensibly fall into a method of giving a general air to all our portraits; just as, by confining ourselves too much to the defects and littleness of nature, we are in danger of falling into the low and tasteless manner.

But in the faces of heroes and men of rank, distinguished either by dignities, virtues, or great qualities, we cannot be too exact, whether the parts be beautiful or not: for portraits of such persons are to be standing monuments to posterity; in which case, every thing in a picture is precious that is faithful. But after whatever manner the painter acquits himself in this point, let him never forget good air nor grace; and that there are, in the natural, advantageous moments for hitting them off.

Of Colouring.—Colouring, in portraiture, is an effusion of nature, discovering the true tempers of persons; and the temper being essential to likeness, it ought to be handled as exactly as the design. This part is the more valuable, as it is rare and difficult to hit. A great many painters have come to a likeness by strokes and outlines; but certainly they are few who have shown in colours the tempers of persons.

Two points are necessary in colouring; exactness of tints, and the art of setting them off. The former is acquired by practice, in examining and comparing the colours we see in life with those by which we would imitate it: and the art of those tints consists in knowing what one colour will produce when set by another, and in making good what either distance or time may abate of the glow and freshness of the colours.

A painter who does nothing more than what he sees, will never arrive at a perfect imitation; for though his work may seem, on the easel, to be good to him, it may not appear so to others, and perhaps even to himself, at a distance. A tint which, near, appears disjoined, and of one colour, may look of another at a distance, and be confounded in the mass it belongs to. If you would have your work, therefore, to produce a

good

Attitude. good effect in the place where it is to hang, both the colours and lights must be a little loaded; but learnedly, and with discretion. In this point consult Titian, Rubens, Vandyke, and Rembrandt's methods; for indeed their art is wonderful.

The tints usually require three times of observation. The first is at the person's first sitting down, when he has more spirit and colour than ordinary; and this is to be noted in the first hour of his sitting. The second is when, being composed, his look is as usual; which is to be observed in the second hour. And the third is when, through tirefomeness by sitting in one posture, his colour alters to what weariness usually creates. On which account, it is best to keep to the sitter's usual tint, a little improved. He may also rise, and take some turns about the room, to gain fresh spirits, and shake off or prevent tirefomeness.

In *draperies*, all sorts of colours do not suit all sorts of persons. In mens portraits, we need only observe great truth and great force: but in womens there must also be charms; whatever beauty they have must appear in a fine light, and their blemishes must by some means or other be softened. For this reason, a white, lively, and bright tint, ought never to be set off by a fine yellow, which would make it look like plaster; but rather by colours inclining to green, blue, or grey, or such others as, by their opposition, may make the tint appear more fleshy than usual in fair women. Vandyke often made a fillemot coloured curtain for his ground; but that colour is soft and brown. Brown women, on the other hand, who have yellow enough in their tints to support the character of fleshiness, may very well have yellowish draperies, in order to bring down the yellow of their tints, and make them look the fresher; and near very high-coloured and lively carnations linen does wonders.

In *grounds*, two things are observable; the tone and the colour. The colour is to be considered in the same manner as those of draperies, with respect to the head. The tone must be always different from the mass it supports, and of which it is the ground, that the objects coming upon it may not seem transparent, but solid and raised. The colour of the hair of the head usually determines the tone of the ground; and when the former is a bright chesnut, we are often embarrassed, unless helped by means of a curtain, or some accident of the *claro-obscuro*, supposed to be behind, or unless the ground is a sky.

We must further observe, that where a ground is neither curtain nor landscape, or such like, but is plain and like a wall, it ought to be very much party-coloured, with almost imperceptible patches or stains; for, besides its being so in nature, the picture will look the more grand.

Of Attitude, or Posture.—Attitudes ought to suit the ages and qualities of persons and their tempers. In old men and women, they should be grave, majestic, and sometimes bold: and generally, in women, they ought to have a noble simplicity and modest cheerfulness; for modesty ought to be the character of women; a charm infinitely beyond coquetry! and indeed coquettes themselves care not to be painted such.

Attitudes are of two kinds: one in motion, the other at rest. Those at rest may suit every person; but those in motion are proper for young people only,

and are hard to be expressed; because a great part of the hair and drapery must be moved by the air; motion, in painting, being never better expressed than by such agitations. The attitudes at rest must not appear so much at rest as to seem to represent an inactive person, and one who sits for no other purpose but to be a copy. And though the figure that is represented be at rest, yet the painter, if he thinks fit, may give it a flying drapery, provided the scene or ground be not a chamber or close place.

It is above all things necessary that the figures which are not employed should appear to satisfy the spectator's curiosity; and for this purpose show themselves in such an action as suits their tempers and conditions, as if they would inform him what they really were: and as most people pretend to sincerity, honesty, and greatness of mind, we must avoid, in attitudes, all manner of affectation; every thing there must appear easy and natural, and discover more or less spirit, nobleness, and majesty, in proportion to the person's character and dignity. In a word, the attitudes are the language of portraits; and the skilful painter ought to give great attention to them.

But the best attitudes are such as induce the spectator to think that the sitter took a favourable opportunity of being seen to advantage, and without affectation. There is only one thing to be observed with regard to womens portraits, in whatever attitude they are placed; which is, that they sway in such a manner as to give their face but little shade; and that we carefully examine whether the lady appear most beautiful in a smiling or in a serious air, and conduct ourselves accordingly. Let us now proceed to the next article.

Of Practice in Portraiture.—According to De Piles, portraiture requires three different sittings and operations; to wit, dead-colouring, second-colouring, and retouching or finishing. Before the painter dead-colour, he must attentively consider what aspect will best suit the sitter, by putting him in different positions, if we have not any settled design before us: and when we have determined this, it is of the last consequence to put the parts well together, by comparing always one part with another; for not only the portrait acquires a greater likeness when well designed, but it is troublesome to make alterations at the second sitting, when the artist must only think of painting, that is, of disposing and uniting his colours.

Experience tells us, that the dead-colouring ought to be clean, because of the slope and transparency of the colours, especially in the shades: and when the parts are well put together, and become clammy, they must be judiciously sweetened and melted into each other; yet without taking away the air of the picture, that the painter may have the pleasure of finishing it, in proportion as he draws. But if fiery geniuses do not like this method of scumbling, let them only mark the parts slightly, and so far as is necessary for giving an air.

In dead colouring, it is proper to put in rather too little than too much hair about the forehead; that, in finishing, we may be at liberty to place it where we please, and to paint it with all possible softness and delicacy. If, on the contrary, you sketch upon the forehead a lock which may appear to be of a good taste,

and becoming the work, you may be puzzled in finishing it, and not find the life exactly in the same position as you would paint it. But this observation is not meant for men of skill and consummate experience, who have nature in their heads, and make her submit to their ideas.

The business of the second sitting is, to put the colours well in their places, and to paint them in a manner that is suitable to the sitter and to the effect we propose: But before they are made clammy, we ought to examine afresh whether the parts are rightly placed, and here and there to give some touches towards likeness, that, when we are assured of it, the work may go on with greater satisfaction. If the painter understands what he is about, and the portrait be justly designed, he ought as much as possible to work quick; the sitter will be better pleased, and the work will by this means have the more spirit and life. But this readiness is only the effect of long study and experience; for we may well be allowed a considerable time to find out a road that is easy, and such as we must often travel in.

Before we retouch or finish, it is proper to terminate the hair, that, on finishing the carnations, we may be abler to judge of the effect of the whole head.

If, at the second sitting, we cannot do all we intended, which often happens, the third makes up the loss, and gives both spirit, physiognomy, and character.

If we would paint a portrait at once, we must load the colouring; but neither sweeten, nor drive, nor very much oil it: and if we dip the pencil in varnish as the work advances, this will readily enable us to put colour on colour, and to mix them without driving.

The use and sight of good pictures give greater light into things than words can express: What hits one artist's understanding and temper may be disagreeable to another's; and almost all painters have taken different ways, though their principles were often the same.

We are told that a friend of Vandyke's having observed to him how little time he bestowed on his portraits, Vandyke answered, "That at first he worked hard, and took great pains, to acquire a reputation, and also to get a swift hand, against the time he should work for his kitchen." Vandyke's custom is said to have been this: He appointed both the day and hour for the person's sitting, and worked not above an hour on any portrait, either in rubbing in or finishing; so that as soon as his clock informed him that the hour was out, he rose up, and made a bow to the sitter, to signify, that he had done enough for that day, and then appointed another hour some other day; whereupon his servant came to clean his pencils, and brought a fresh pallet, whilst he was receiving another sitter, whose day and hour he had before appointed. By this method he worked on several pictures the same day, with extraordinary expedition.

After having lightly dead-coloured the face, he put the sitter into some attitude which he had before contrived; and on a grey paper, with white and black grayons, he designed, in a quarter of an hour, his shape and drapery, which he disposed in a grand

manner, and an exquisite taste. After this, he gave the drawing to the skilful people he had about him, to paint after the sitter's own clothes, which, at Vandyke's request, were sent to him for that purpose. When his disciples had done what they could to these draperies, he lightly went over them again; and so, in a little time, by his great knowledge, displayed the art and truth which we at this day admire in them. As for hands, he had in his house people of both sexes, whom he paid, and who served as models.

This conduct of Vandyke, however, is mentioned rather to gratify the reader's curiosity, than to excite his imitation; he may choose as much of it as he pleases, and as suits his own genius, and leave the rest.

We must observe by the way, that there is nothing so rare as fine hands, either in the design or colouring. It is therefore convenient to cultivate, if we can, a friendship with some women who will take pleasure in serving for a copy: The way to win them is, to praise their beauty exceedingly. But if an opportunity serves of copying hands after Vandyke, it must not be let slip; for he drew them with a surprising delicacy, and an admirable colouring.

It is of great service to copy after the manners which come nearest to nature; as are those of Titian and Vandyke. We must, at such times, believe them to be nature itself; and, at some distance, consider them as such, and say to ourselves—*What colour and tint shall I use for such a part?* And then, coming near the picture, we ought to examine whether we are right or not; and to make a fixed rule of what we have discovered, and did not practise before without uncertainty.

It is recommended, before we begin colouring, to catch the very first moments, which are commonly the most agreeable and most advantageous, and to keep them in our memory for use when we are finishing: for the sitter, growing tired with being long in the same place, loses those spirits, which, at his first sitting down, gave beauty to the parts, and conveyed to the tint more lively blood, and a fresher colour. In short, we must join to truth a probable and advantageous possibility, which, far from abating likeness, serves rather to set it off. For this end, we ought to begin with observing the ground of a tint, as well what it is in lights as in shades; for the shades are only beautiful as they are proportioned to the light. We must observe, if the tint be very lively, whether it partake of yellowness, and where that yellowness is placed; because usually, towards the end of the sitting, fatigue diffuses a general yellowness, which makes us forget what parts were of this colour, and what were not, unless we had taken due notice of it before. For this reason, at the second sitting, the colours must be everywhere readily clapped in, and such as appear at the first sitting down; for these are always the finest.

The surest way to judge of colours is by comparison; and to know a tint, nothing is better than to compare it with linen placed next it, or else placed next to the natural object, if there is occasion.—We say this only to those who have little practised nature.

The portrait being now supposed to be as much finished

Different Methods of Painting. finished as you are able, nothing remains, but, at some reasonable distance, to view both the picture and fitter together, in order to determine with certainty, whether there is any thing still wanting to perfect the work.

SECT. IV. *Of Theatric Decorations; the Designs for Furniture, Embroidery, Carriages, &c.*

Of Theatrical Decorations.—This is a particular art which unites several of the general parts of painting with the knowledge of architecture, perspective, &c. They who apply themselves to it would do well to design their decorations by day, and to colour them by candle-light, as they will be much better able to judge of the effect of a painting intended to be viewed by that light. It is proper also to caution the young painter to avoid, as much as possible, the uniting the imitations of nature with nature itself; that is, he should not introduce with his decorations living horses, or other animals, real fountains or cascades, trees, or statues, &c. For such combinations are the effect of ignorance and a bad taste; they are the resource of painters of little ability; they discover a sterility of invention, and produce great inconvenience in the representation. Those pieces which they call moving pictures, where the painted landscape remains immoveable, and the figures move by means of springs, form a part of these decorations; and there are some of them, as those of Antwerp and Ghent, that have a pleasing effect.

The designs for *furniture, carriages, porcelain*, and other branches of manufacture, form also a very important article of painting in general, and of academy painting in particular. This is a distinct branch of the art; and without doubt not the least useful of its parts, as it concurs so essentially to the success of manufactures, and consequently to the prosperity of a state: and it is an art, to which it were much to be wished that youth of ability and invention would apply themselves. See the articles *JAPANNING* and *PORCELAIN*.

SECT. V. *Enumeration of the different Methods of Painting, or the different Means and Materials that Painters make use of to imitate all visible Objects on a plane Superficies.*

THOSE now in practice are,

1. Painting in OIL; which is preferable to all other methods, as it is more susceptible of all sorts of expressions, of more perfect gradations of colours, and is at the same time more durable.

2. MOSAIC painting; an invention truly wonderful; it is composed of a great number of small pieces of marble of different colours, joined together with stucco. The works of this kind are made principally at Rome, where this art has been carried so far as to resemble the paintings of the greatest masters; and of these are made monuments for the latest posterity.

3. Painting in FRESCO; which is by drawing, with colours diluted with water, on a wall newly plastered, and with which they so incorporate, that they perish only with the stucco itself. This is principally used on ceilings.

4. Painting in WATER-COLOURS; that is, with colours mixed with water and gum, or paste, &c.

5. MINIATURE painting; which differs from the preceding as it represents objects in the least discernible magnitudes.

6. Painting in CRAYONS; for which purpose colours, either simple or compound, are mixed with gum, and made into a kind of hard paste like chalk, and with which they draw on paper or parchment.

7. Painting in ENAMEL; which is done on copper or gold, with mineral colours that are dried by fire, and become very durable. The paintings on the PORCELAIN of China and Europe, on Delph ware, &c. are so many sorts of enamel.

8. Painting in WAX, or ENCAUSTIC painting: This is a new or rather an old invention renewed, in which there are in France performances highly pleasing. It is done with wax mixed with varnish and colours.

9. Painting on GLASS; of which there are various kinds.

See all the articles here enumerated, explained in the order of the alphabet. On one of them, however, some additional observations may here be subjoined.

§ 1. *Of painting in Fresco.*

OF all kinds of painting fresco is the most ancient, the most durable, the most speedily executed, and the most proper to adorn great buildings. It appears, that the fragments of ancient painting handed down to us by the Romans are all in fresco. Nörden, quoted by Winkelman, speaks of the ruins of Egyptian palaces and temples, in which are Colossian paintings on walls 80 feet high. The description which those authors have given of these paintings, of the prepared ground, and of the manner in which the colours have been employed, &c. shows plainly that they have been executed in fresco.

The stability of fresco is demonstrated by the existence of those fragments of the highest antiquity. There are no other kinds of painting which could equally have resisted the injuries of the weather, the excessive aridity of certain elements, the moisture of subterraneous situations, and the encroachments of barbarians.

There are different opinions concerning the climate most proper to preserve this kind of painting. "It is observed (says Felibien), that the colours in fresco fade sooner in Italy and Languedoc than at Paris; perhaps from less heat in the last mentioned place, or better lime." M. Falconet contradicts this assertion in his notes on Pliny, vol. i. p. 223. of his miscellaneous works, published at Paris 1787. Painting in fresco, according to this author, is longer preserved in dry and warm, than in northern and moist climates. However opposite the sentiments of these two authors may appear to be, it is possible to reconcile them, when we consider, that the exposure to a burning sun is capable of operating a great change of the colours on the one hand, and that the frost in a cold climate inevitably destroys the paintings of fresco on the other. Frost is capable of bursting stones, of corroding the petrified veins of earth in the heart of coloured marble, and, in short, nothing can resist its destructive operation.

These observations on fresco paintings lead us to conclude, that the choice of place, when they are without doors, is of the greatest importance. In countries

where

where there is little or no frost, an exposure to the north is the most favourable; and in cold climates a western exposure should be made choice of, because the first rays of the rising sun have a very pernicious effect after frost. We are not, however, wholly to adopt the sentiment of M. Falconet with regard to the pernicious effects of moisture on fresco paintings: for,

1. The ancient paintings recovered from moist places, in which they were buried for many ages, have, under enormous heaps of earth, preserved all their colours. Those from the ruins of Herculaneum have been observed, on the contrary, to lose their colours in a short time after they have been dried by the exterior air.
2. The mortar which composes the ground of this painting is not destroyed in our rainy climates. It is necessary frequently to use powder in removing pieces of this mortar, which are now found to obstruct some buildings in Paris.

After the choice of place, the choice of materials is the next thing of importance in executing fresco. To make it durable, the ground is the object of chief attention; and to make this perfect, the mortar used by the ancients, now unknown, would be necessary.

It is easy to perceive, that a minute detail of forms, an extensive mixture and gradation of tints, and the merit of a delicate and gentle touch, can make no part of the excellencies of this kind of painting. It cannot bear a close examination like a picture in oil. There is always something dry and rough which displeases. An artist who would flatter himself with success in a fresco placed near the eye would be grossly deceived: a common spectator would find it coarse and badly finished.

Fresco is chiefly employed in palaces, temples, and public edifices. In these vast places no kind of painting can be preferred to it; large, vivid in its strokes, and constantly fresh, it enriches the architecture, animates it, and gives relief to the eye from the repetition of the same forms, and the monotony of colour in a place where coloured marbles and bronzes are not employed. Still more a fine fresco gives the greatest effect to a lofty building, since this building serves as a frame and support to this enchanting art, which fixes the attention of every person of sensibility and taste.

We shall afterwards have occasion to show the manner of executing fresco, as well as the nature and application of the colours employed in it: it is necessary to demonstrate here, that it has a freshness, splendor, and vigour not to be found in oil or water colours.

A known principle in all kind of painting is, that the colouring is more perfect in proportion as it approaches to the lights and shades in nature. As colours applied to any subject can never reach this degree of perfection, the allusion which painters produce consists in the comparison and opposition of the tones of colours among themselves.

If the white of the finest and purest oil appears heavy and grey, compared with great lights in natural whites, it follows, that, in order to copy them with fidelity, the tones which follow the first white must be degraded in an exact proportion. Thus it is necessary that the shades of a picture be considerably deeper than those of the model; especially if, from the greatest lights to the browns, one hath propor-

tionally followed the distance which is found between the colours on the pallet and the tones of the object copied.

Now if the white of fresco be infinitely more bright than that of oil, the same effect will be obtained in a brown tone. On the other side, if it constantly happens that the brown tones of fresco are much more vigorous than those of water colours, and equal even to the browns of oil itself, it is certain that it possesses a splendor and vigour more extensive than any other kind of painting. Thus in the hands of an artist who is well acquainted with the colours fit for fresco, it is more susceptible of the general effect, and more capable than any other kind of giving projection and the semblance of life to the figures.

If we were to inquire why painting in fresco is now scarcely or never practised, we should perhaps ascribe it to the great talents required to execute it. "Many of our painters (says Vafari in his treatise on painting) excel in oil and water colours, and yet fail in fresco; because of all kinds this requires the greatest strength of genius, boldness in the strokes, and resolution." If in an age abounding in great masters, it was difficult to excel in this kind, it must be much more so in ours; but we should not require the characters of sublimity and style to which men were accustomed in the time of Vafari.

We should execute in fresco as we do in oils; for Italy herself, along with Michael Angelo and Zuccharo, had Cortonni Giardano and Francischini as middling fresco-painters. And in France, Lafosse, Bon Boulogne, and Perur, performed several works in fresco which might be imitated by the painters of our times. But let us proceed to the real causes for abandoning this art. These proceed from the want of knowledge and taste in the persons who employ the artists, and from the manners of the age. As a pleasant or licentious conceit, unfinished colouring, and bold effects of shade, are the chief objects of consideration, a very smooth painting enlivened by gentle touches completely gratifies the person who pays the price; and therefore the philosophical principles of the art, which require study, are not cultivated.

We shall now attend to the mechanical process of this useful and beautiful kind of painting. Before painting, it is necessary to apply two layers. If the wall on which you are to paint is of brick, the layer is easily applied; but if it is of freestone closely united, it is necessary to make excavations in the stone, and to drive into them nails or pegs of wood in order to hold the first layer.

The first layer is made of good lime and a cement of pounded brick, or, which is still better, river-sand: this latter forms a layer more uneven, and better fitted to retain the second smooth and polished layer applied to its surface.

There should be experiments to discover a layer still more compact, and more independent of the variations of the air; such, for example, as covers the aqueducts and ancient reservoirs constructed by the Romans in the neighbourhood of Naples.

Before applying the second layer, or what you are to paint, it is necessary that the first be perfectly dry; for there issues from the lime, when it is moist, a smell both disagreeable and pernicious to the artist.

When

Fresco.

When the first layer is perfectly dry, it is wet with water in proportion to its dryness, that the second layer may the more easily incorporate with it.

The second layer is composed of lime, slaked in the air, and exposed for a year, and of river-sand, of an equal grain, and moderately fine.

It requires an active and intelligent mason to apply this layer, as the surface must be altogether equal. The operation is performed with a trowel; and the operator requires to have a small piece of wood to take away the large grains of sand, which, remaining, might render the surface uneven.

To give a fine polish to this layer, one ought to take a sheet of paper, apply it to the wall, and pass and repass the trowel over the paper. By this means the little inequalities which hurt the exactness of the stroke, and which produce false appearances at a distance, are entirely smoothed.

The artist must not lay more than the painter can finish in a day, as this kind of painting must be executed on a fresh ground.

The layer being thus prepared, the painter begins his operation; but as painting in fresco must be executed rapidly, and as there is no time to retouch any of the strokes, the painter, as we have observed under the article *Fresco*, takes care to provide himself with large cartoons, on which he has drawn, with exactness, and in their full size, the figures which he is to paint, which leaves him nothing to do but to copy them on the wall.

The cartoons are composed of several sheets of large paper pasted one on another, neither too thick nor too slender.

The painter traces the tracks of the figures on the plaster, by passing a steel point over the tracks in the cartoons, or in pricking them.

Having in this manner attained an exact and speedy drawing, it now remains to execute the painting.

But it is essential, when one wishes to finish any small work of this kind, in the first place to be informed of the proper colours, and of those which cannot be used.

In general, the colours which are extracted from earths, and those which have passed through the fire, are the only ones which can be employed in this kind of painting.

The colours are white, made of lime, the white of egg-shells, ultramarine, the black of charcoal, yellow ochre, burnt vitriol, red earth, green of Verona, Venetian black, and burnt ochre.

There are others which require to be used with great precaution, such as enamel blue, cinnabar, and white marble dust.

When enamel blue is used, it requires to be applied instantaneously, and when the lime is very moist, otherwise it does not incorporate with the plaster; and if one retouch with this colour, it must be done an hour or more after the first application, to increase its lustre.

With regard to the white marble dust, it is subject to turn black if it be not mixed up with a convenient quantity of white lime.

Cinnabar, which has a splendor almost superior to all other colours, loses it almost entirely when mixed with lime. At the same time, it may be employed in

places not exposed to the air, with a little degree of care in the preparation. Reduce a quantity of the purest cinnabar to powder, put it into an earthen vessel, and pour lime-water on it for two or three times. By this process the cinnabar receives some impression of lime-water, which makes it capable of being employed in fresco-painting.

One of the best colours, and the one most used in fresco for the gradation of tints, and for giving the requisite tone, is white of lime. This white is prepared by mixing lime slaked long before with good water. The lime deposits a sediment at the bottom of the vessel; when the water is poured off, this sediment is the white of lime.

Another kind of white might be used, the effects of which would be known by experience, namely, the white of egg-shells. To prepare this white, one must take a great quantity of shells of eggs, which must be pounded and boiled in water along with a quantity of quicklime; after this they are put into a strainer, and washed repeatedly with fountain-water.

The shells are again pounded until the water employed for that purpose become pure and limpid; and when they are in this manner reduced to powder, this powder is grinded in water, and formed into small pieces, and dried in the sun.

All the different kinds of ochres make excellent colours for fresco, and take different shades, being previously burned in iron chests.

With regard to the Naples yellow, it is dangerous to use it where the painting is much exposed to the air. The blacks of charcoal, of peach-stones, and of vine twigs, are good; but that extracted from bones is of no value.

Roman vitriol gathered at the furnaces, and which is called *burnt vitriol*, grinded afterwards in spirit of wine, resists the air extremely well when employed in lime. There is also a red extracted from this preparation somewhat like that produced from lac.

This colour is very proper for preparing the layers to be coloured with cinnabar; and the draperies painted with these two colours will vie in splendor with those painted with fine lac in oil.

The ultramarine is the most faithful colour; and it not only never changes, but it communicates this precious quality to those colours with which it is mixed.

The manner of employing those colours, is to grind them in water, and to begin by arranging them into the principal tints you are to employ: these are afterwards put into pots; and it is necessary to use a great many pallets raised at the edges, to form the intermediate shades, and to have under your eye all the shades you require.

As all the tints, except burnt ochre, violet, red, and blacks of all kinds, are apt to become clear, the painter must have beside him some pieces of brick or new tile very dry. A dash of the colours is applied to one of these with the pencil before using them; and as tile instantaneously imbibes the water, one perceives what the shade will be after the fresco is dry.

§ 2. *Elydoric Painting*, invented by M. Vincent of Montpetit.

This new kind of painting is little known, and capable of great improvement.

Elydoric
Painting.

Its

Elydoric
Painting.

Its principal advantages are, that the artist is able to give the greatest finishing possible to small figures in oil; to add to the mellowness of oil painting, the greatest beauty of water-colours in miniature, and to do it in such a manner that it appears like a large picture seen through a glass which diminishes objects.

This kind of painting takes its name from two Greek words expressive of *oil* and *water*; because these two liquids are employed in the execution. The following is the manner of proceeding: A piece of very fine linen, or of white taffety, is sized with starch, in the most equal manner possible, on pieces of glass about two inches square, the angles of which are blunted in order that the cloth may cover them neatly and without wrinkles.

When these pieces of cloth are sufficiently dry, a layer composed of white-lead finely grinded, and oil of pinks or of poppies, the whitest that can be found, is applied to them with a knife. When this layer is dry enough to admit of scraping, more may be applied if necessary.

As it is of the greatest importance for the preservation of this kind of painting, that the different layers be purged of oil, in order that they may imbibe the colours applied to them, it is necessary that their surface be very smooth, very dry, and very hard.

The artist is next provided with a circle of copper nearly two inches in diameter, one-fourth of an inch in height, extremely thin, and painted on the inside with black. This circle is employed to contain the water on the surface of the picture.

The preference is given to water distilled from rain or snow; because ordinary water, from the salts which it contains, is pernicious to this kind of painting.

It is necessary also to observe, that the colours must be grinded between two oriental agates, most carefully preserved from dust, and mixed with oil of poppies, or any other siccativ oil which has been extracted without fire, and pure as water.

All the colours being grinded, they are placed in a small heap on a piece of glass, which is covered with distilled water in a tin-box.

When the materials are thus prepared, the subject is slightly traced on one of the pieces of cloth above-mentioned with a lead pencil.

Elydoric
Painting.

The tints are formed on the pallets from the heaps of colours under the water, and the pallet placed as usual on the left arm with the thumb through the aperture.

The picture is held between the thumb and forefinger, supported by the middle, and the necessary pencils between the third and little fingers. The hand is supported on the back of a chair, that there may be full liberty of bringing the work near, or keeping it at a distance from the eye.

The pencils are cleaned with the essence of rectified turpentine.

After having made the rough draught with the colours still fresh, the circle of copper, which ought to surround the picture, is fitted exactly to the surface.

The distilled water is poured within this circle to the height of one-eighth part of an inch; and the body is leaned forward till the sight fall perpendicularly on the object.

The third finger of the right hand must rest on the internal right angle of the picture.

The artist, with a fine and firm pencil, runs over the first draught, to give colours to the weak places, and to soften those which appear too strong.

As soon as the oil swims on the top, the water is poured off, and the picture is carefully covered with a watch-glass, and dried in a box with a gentle heat.

When it is sufficiently dry, to be scraped almost to a level with the knife: the above operation is renewed till the artist is satisfied with his work.

It is in this last work that the artist feels all the advantage of this new method for finishing.

The water poured on the picture discovers all the faults of the pencil, gives facility in searching into the bottom of the shades, and the power of correcting the work and of rendering it perfect.

When the work is finished, it is put under a crystal, where there is no admission of external air, and dried with a gentle heat.

PART III. OF OECONOMICAL PAINTING.

SECTION I.

THE object of this Part is to give an account of some mechanical proceedings in certain kinds of painting, calculated to preserve and embellish the walls of houses and furniture. This branch of the art extends to every part of architecture. The whole building becomes the workshop of the artist; the stairs, the balustrades, the sashes, the doors, and the railing of all kinds, occupying his first care, and then the ceilings and wainscoting.

The artist gives to all his subjects a chosen and uniform tint; but he has it in his power to vary the colours on different parts of the building in such a manner as to produce the most pleasing effect.

Among the utensils of the painter, it is needless, but for rendering the article complete, to mention brushes and pencils of all sizes as absolutely necessary.

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The brushes are made of boars bristles, or of hair with a mixture of bristles; they ought to be straight, very smooth, and of a round form. Half an hour before they are used, it is proper to soak them in water, in order to swell the wood of the handle, and prevent the hairs from falling off; after this they may be applied to all purposes, either in water colours or in oil; but it may be observed, that for the former they require less softening.

The pencils are made of badgers hair, or any fine hairs enchased in the pipes of quills of all sizes.

The vessel wherein the pencils are cleaned is made of copper or of tin, smooth below, rounded at the ends, and divided into two parts by a thin plate in the middle. The oil, or the substance with which the pencil is cleaned, is contained in one of the divisions.

The pallet is made of the wood of the pear or apple tree, of an oval or square shape, very slender, but some-

²²
Of the
utensils for
this kind of
painting.

Oeconomical Painting.

somewhat thicker at the centre than at the extremities. A hole is made in one of its sides sufficiently large to admit the thumb of the workman.

When the pallet is new, it is covered with oil of walnuts; and as often as it dries, the operation is repeated, till it be fully impregnated; it is afterwards polished, and finally rubbed with a piece of linen dipped in oil of common nuts.

The painter's knife is a thin flexible plate, equally slender on both sides, rounded at one extremity, and the other fixed into a handle of wood.

All the vessels employed to hold the colours should be varnished; a precaution necessary to prevent their drying too quickly.

²³ Of grinding and diluting the colours.

To grind, is to reduce to powder the substances which give colours on a piece of marble or any hard stone by means of water, oil, or essence.

To dilute, is to impregnate a liquid with a tint in such a manner as to make it capable of being applied by a brush.

When the materials are grinded in water, it is proper to dilute them in size made from parchment. If they are diluted in spirit of wine, there must be no more diluted than what serves the immediate occasion, as colours prepared in this manner dry very rapidly.

Colours grinded in oil are sometimes diluted with pure oil, more frequently with oil mixed with essence, and commonly with the pure essence of turpentine; the essence makes the colours easy to work. Those prepared in this manner are more solid, but they require more time to dry.

When colours are grinded with the essence of turpentine, and diluted in varnish, as they require to be immediately applied, it is necessary to prepare a small quantity at a time. This preparation of colours gives greater brilliancy, and dries more speedily, than those prepared in oil; but they require more art to manage them.

They grind colours or coloured substances with a mullet, which is employed on the stone till they become a very fine powder. The operation is facilitated by moistening them from time to time with a little water, and by collecting them under the mullet with the knife. They are afterwards laid in small heaps on a sheet of white paper, and allowed to dry in a situation not exposed to dust. Those who grind white lead have a stone for the purpose, as this colour is very easily tarnished. In executing this part well, it is necessary to grind the colours equally and moderately; to grind them separately, and not to produce a tint by mixture till the colours are well prepared.

Dilute no more at a time than what you have occasion to employ, to prevent them from growing thick.

In grinding the colours, put in no more liquid than what is necessary to make the solid substances yield easily to the mullet: the more the colours are grinded, they mix better, and give a smoother and more agreeable painting.

It is also necessary to give all attention to the grinding and diluting of colours, that they may be neither too thick nor too thin.

SECT. II. Application of Colours.

1. PREPARE only the quantity necessary for the work you undertake, because they do not keep long;

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and those which are newly mixed are more vivid and beautiful.

Application of Colours.

2. Hold the brush straight before you, and allow only the surface to be applied to the subject: if you hold it inclined in any other direction, you will run the hazard of painting unequally.

3. It is necessary to lay on the colours boldly, and with great strokes; taking care at the same time to spread them equally over the surface, and not filling up the moulding and carved work. If this accident should happen, you must have a little brush to clean out the colours.

4. Stir them frequently in the vessel, that they may preserve always the same tint, and that no sediment may remain at the bottom.

5. Take care not to overcharge the brush with the colour.

6. Never apply a second layer till the first or preceding one be perfectly dry; which it is easily known to be when, in bearing the hand gently over it, it does not adhere.

7. In order to render this drying more speedy and uniform, make always the layers as thin as possible.

8. Before painting, it is necessary to prime the subject; that is, to give it a layer of size, or of white colouring oil, to fill up the pores, and render the surface smooth: by this means fewer layers of colour or of varnish are afterwards necessary.

9. Every subject to be painted or gilded ought to have first a white ground; this preserves the colours fresh and vivid, and repairs the damage which they occasionally receive from the air.

§ 1. Of Painting in Water-colours.

To paint in water-colours, is to do it in those which are grinded in water and diluted in size. There are three kinds of this painting; namely, *common*, the *varnished*, and that which is called *king's white*; but before entering on these, it is necessary to make some preliminary observations.

1. Take care that there be no grease on the subject; and if there be, scrape it off, or clean it with a lye, or rub the greasy part with garlic and wormwood.

2. Let the diluted colour fall in threads from the end of the brush when you take it out of the vessel; if it adheres to it, it is a proof that it wants size.

3. Let all the layers, especially at the beginning, be laid on very warm, provided that the liquid be not boiling, which would effectually spoil the subject; and if on wood, expose it to crack. The last layer, given immediately before the varnish, is the only one which ought to be applied cold.

4. In very fine work, where it is necessary to have beautiful and solid colours, the subjects are prepared by size and proper whites, which serve as a ground to receive the colour, and render the surface very equal and smooth.

5. Whatever colour is to be laid on, the white ground is the best, as it assimilates most easily with the painting, which borrows always something of the ground.

6. If knots of wood are found in the subject, it is necessary to rub them with garlic, to make the size adhere.

Application
of Colours.

To make the following details sufficiently plain, we shall take the measures to which the quantity of colours are applied at fathoms; that is to say, six feet in height by six feet in breadth. We shall afterwards fix the quantity of materials, and of liquids necessary to cover this surface. This, however, cannot be exactly defined; as some subjects imbibe the colours much more than others. The manner of employing them also makes a difference; as habit enables one to manage them to greater advantage than another. And it is also to be observed, that the first layer will consume more than the second; and that a prepared subject requires less than one which has not been so.

When we speak of a fathom, it must be understood of a smooth and equal surface; for if the wood is varied with mouldings and carving, there must be a difference in the quantity of colours. In general it requires about a pound of colours to paint a square fathom in water-colours. In making up this quantity, take three-fourths of colours grinded in water, and one-fourth pound, or six ounces, of size to dilute it.

§ 2. Of Painting in common Water-colours.

WORKS which require no great care or preparation, as ciplings and staircases, are generally painted in common water-colours, *i.e.* with earths infused in water and diluted in size.

For a common white kind of this painting, steep Spanish white moderately pounded in water for two hours. Infuse a proper quantity of the black of charcoal in water for the same space of time; mix the black and white in the proportion that the tint requires; afterwards mix them up with a pretty strong size, sufficiently thick and warm, and apply them to the subject in as many layers as may be thought necessary. It requires about two pounds of white in a pint of water, and a quantity of black in proportion to the tint, together with a part of size, to cover a square fathom. If this be employed on old walls, they must be well scraped, the dust brushed off with a hair besom, and washed carefully with lime water. If on new plaster, the colours require more size.

All kinds of colours may be grinded in water only when the tint is made; and when they have been infused in water, they must be mixed up with size.

§ 3. Walls done with the White Des Carmes.

THE white *des carmes* is a manner of whitening interior walls, whereby they are rendered extremely beautiful.

1. Procure a quantity of the very best lime, and pass it through fine linen; pour it into a large tub, furnished with a spigot at the height equal to that which the lime occupies: fill the tub with clear fountain-water; beat the mixture with great pieces of wood, and then allow it to settle for 24 hours.

2. Open the spigot, allow the water to run off, supply the tub with fresh water, and continue this operation for several days until the lime receives the greatest degree of whiteness.

3. When you allow the water finally to run off, the lime will be found in the consistency of paste; but with the quantity you use it is necessary to mix a little Prussian blue or indigo to relieve the brightness of the

white, and a small quantity of turpentine to give it brilliancy. The size proper for it is made of glove-leather, with the addition of some alum; and the whole is applied with a strong brush in five or six layers to new plaster.

4. The wall is strongly rubbed over with a brush of hogs bristles after the painting is dry; which gives it its lustre and value, and which makes it appear like marble or stucco.

§ 4. Of Badegoon.

BADEGEON is a pale yellow colour applied to plaster to make it appear like free stones. It gives to old houses and churches the exterior of a new building, by assuming the colour of stones newly cut.

1. Take a quantity of lime newly killed.

2. Add to it the half quantity of what the French call *sciure de pierre*, in which you have mixed of the ochre of *rue*, according to the colour of the stone you intend to imitate.

3. Steep the whole in a pail of water, in which is melted a pound of rock alum. When the *sciure de pierre* cannot be obtained, it is necessary to use a greater quantity of ochre of *rue*, or of yellow ochre, or grind the scales of the stone de St Leu; pass it through a sieve; and along with the lime it will form a cement, on which the weather will scarcely make any impression.

§ 5. Of Cielings and the Roofs of Rooms.

WHEN the ciplings or roofs are new, and you wish to whiten them, take white of Bougival, to which add a little of the black of charcoal to prevent the white from growing reddish: infuse them separately in water; mix the whole with half water and half size of glove-leather, which being strong would make the layer come off in rolls if it were not reduced with water. Give two layers of this tint while it is lukewarm.

If the roof has been formerly whitened, it is necessary to scrape to the quick all the remaining white; then give it two or three layers of lime to ground and whiten it: Brush it carefully over; and give it two or three layers of the white of Bougival prepared as before.

§ 6. Of Colouring the backs of Chimneys with Lead Ore.

CLEAN them with a very strong brush, and carefully rub off the dust and rust; pound about a quarter of a pound of lead ore into a fine powder, and put it into a vessel with half a pint of vinegar; then apply it to the back of the chimney with a brush: When it is made black with this liquid, take a dry brush, dip it in the same powder without vinegar, and dry and rub it with this brush till it become shining as glass.

§ 7. Of Varnished Water-colours.

THE advantages of this kind of painting are, that the colours do not fade; that they reflect the light; that they give no offensive smell, but permit the places to be inhabited as soon as finished; and that the varnish preserves the wood from insects and moisture.

To make a fine varnish on water-colours, seven principal operations are necessary; namely, to size the wood, to prepare the white, to soften and rub the subject, to clean the moulding, to paint, to size, and to varnish.

To

Application
of Colours.24
First opera-
tion.

To size the wood is to give one or two layers of size to the subject which you intend to paint.

Take three heads of garlic and a handful of worm-wood leaves; boil them in three pints of water till they are reduced to one; pass the juice through a linen cloth, and mix it with a pint of parchment size; add half a handful of salt and half a pint of vinegar; and boil the whole on the fire.

Size the wood with this boiling liquor; allow it to penetrate into the carved and smooth places of the wood, but take care at the same time to take it as clean off the work as possible, or at least to leave it at no place thicker than another. This first sizing serves to fill up the pores of the wood, and to prevent the materials afterwards from collecting in a body, which would cause the work to fall off in scales.

In a pint of strong parchment size, to which you have added four pints of warm water, put two handfuls of white Bougival, and allow it to infuse for the space of half an hour.

Stir it well, and give a single layer of it to the subject very warm but not boiling, equally and regularly laid on, and dashed with repeated strokes of the brush into the mouldings and carved work.

25
Second opera-
tion.

To prepare the white, take a quantity of strong parchment size, and sprinkle lightly over it, with the hand, Bougival white, till the size be covered with it about half an inch in thickness; allow it to soak for half an hour as near the fire as to keep it milk warm; and then stir it with the brush till the lumps are broken, and it be sufficiently mixed.

Give seven, eight, or ten layers of this white, or as many as the nature of the work or the defects in the wood shall render necessary, giving more white to the parts which require to be softened; but in general, the layers must be equal both with regard to the quantity of the white and the strength of the size.

The last layer of the white ought to be clearer than the rest, which is made by adding water. It must be applied more slightly, taking care with small brushes to cover all the difficult places in the mouldings and carved work. It is necessary also, between the drying of the different layers, to fill up all the defects with white mastich and size.

26
Third opera-
tion.

To soften, is to give to the subject after the whitening a smooth and equal surface, and to rub it over with a pumice stone.

The wood being dry, take little pieces of white wood and of pumice-stone, grinded for the purpose into all necessary forms, either for the panels or the moulding.

Take cold water, heat being destructive of this kind of work; in summer it is common to add a little ice. Soften the wall with a brush, but only as much at a time as you can easily work, as the water might dilute the white and spoil the whole: Then smooth and rub it with the pumice stones and with the small pieces of wood: Wash it with a brush as you smooth it, and rub it over with a piece of new linen, which gives a fine lustre to the work.

27
Fourth opera-
tion.

The mouldings and carved work are cleaned with an iron; and the only thing to be attended to in the operation is not to raise the grain of the wood.

The subject thus prepared is ready to receive the co-

lour you intend to give it. Choose your tint; sup-
pose a silver colour.

Painting in
Oil-colours.

Grind white ceruse and Bougival white separately in water, of each an equal quantity, and mix them together.—Add a little blue of indigo and a very small quantity of black of charcoal from the vine-tree very fine, grinded also separately, and in water; more or less of the one or other gives the tint you require.—Dilute this tint in strong parchment size; pass it through a bolting cloth of silk very fine, and lay the tint on your work, taking care to spread it very equally; and then give it two layers, and the colour is applied.

Make a weak, beautiful, and clean size; stir it till it cools; strain it through a fine cloth, and give two layers to the work with a soft painting brush, which has been used, but which you have been careful to clean. Take care not to choak up the mouldings nor to lay on the size thicker on one place than another, and spread it over the work very slightly, otherwise you will dilute the colours, and occasion undulations in the painting.

The beauty of the work depends on this last sizing; for if any part is omitted, the varnish will penetrate into the colours and give it a darker shade.

When the sizing is dry, lay on two or three layers of spirit-of-wine varnish, taking care that the place on which you lay it be warm, and the work is finished.

§ 8. Of the King's White.

THIS derives its name from the use of it in the apartments of the French king. It is in all respects conducted like the former, except that there is only a small quantity of indigo, to take the yellow from the white, without any black of charcoal, and without varnish.

This white answers, extremely well for apartments which are seldom used; but otherwise it spoils easily, especially in bed-chambers. It is the best white where there is any kind of gilding; and in this case it receives a little varnish.

SECT. III. Of Painting in Oil-colours.

To paint in oil is to apply to all sorts of subjects, as walls, wood, cloths, and metals, coloured earths grinded and diluted in oil. The ancients are thought to have been ignorant of this art, and the honour of the discovery is generally ascribed to John Van Eyck a Flemish painter. The secret is nothing more than substituting oil in place of water in grinding and diluting colours.

By means of oil the colours are longer preserved; and not drying so speedily, they give painters longer time to smooth, finish, and retouch, their works; the colours being more marked, and mixing better together, give more distinguishable tints, and more vivid and agreeable gradations, and the colouring is more sweet and delicate.

The painting in oil consists of two kinds, namely, of that in simple oil and of that in polished oil varnish.

§ 1. Observations on painting in Oil.

1. When bright colours, as white or grey, are grinded and diluted in oil, it is necessary to make use of the

Painting in
Oil-colours.

oil of walnuts; but if the colours be dark, such as chefnut, or olive, or brown, you must make use of pure linseed oil.

2. When the colours are grinded and diluted in oil, they must be laid on cold, except on a new or moist plaster, which requires them to be boiling.

3. Every colour diluted in pure oil, or in oil mixed with essence, ought to fall in threads from the end of the brush.

4. Take care to stir from time to time your colour before taking it up on the brush, that it may preserve an equal thickness, and consequently the same tone. Notwithstanding the precaution of stirring, if it is found to be thicker towards the bottom, it will be necessary to pour in from time to time a little oil.

5. In general, every subject which is painted in oil ought first to receive one or two layers of white ceruse, grinded and diluted in oil.

6. When the painting is exposed to the air, as in doors, windows, and other works, which cannot be varnished, it is necessary to make these layers with pure oil of walnuts, mixed up with about one ounce of essence to a pound of colours; more would make the colours brown, and occasion them to fall off in dust; but this quantity prevents the sun from blistering the work.

7. In subjects on the inside of the house, or when the painting is varnished, the first layer ought to be grinded and diluted in oil, and the last diluted with pure essence.

8. If copper or iron, or other hard substances, are to be painted, it is necessary to mix a little essence with the first layers, to make the oil penetrate into them.

9. When there are many knots in the subject, as is particularly the case with fir-wood, and when the colour does not easily take impression on these parts, it is necessary, when you paint with simple oil, to lay on a little oil mixed with litharge on the knots. If you paint with polished oil varnish, it is necessary to apply a hard tint, which we shall have occasion to speak of afterwards. A single layer well applied is generally sufficient to give a body to the wood, and make the other layers apply easily.

10. There are colours, such as what the French call *stils-de-grain*, black of charcoal, and especially bone and ivory-blacks, which are difficult to dry when grinded in oil. To remedy this inconveniency, the following ficcative is mixed with the colours, to make them dry, viz. litharge both of the silver and gold colour, vitriol or copperas, and what is called *ficcative oil*.

§ 2. Observations on the Siccatives.

1. Do not mix the ficcative with the colours till they are to be employed, otherwise it will thicken them.

2. Mix it only in very small quantities in tin, where-in there is white lead or ceruse, because those colours are ficcative of themselves, especially when they are diluted in essence.

3. In painting which is to be varnished, give the ficcative only to the first layer, and allow the other layers, in which there is essence, to dry of themselves.

4. In dark colours in oil, give to every pound of

colours in diluting them half an ounce of litharge; to bright colours, a drachm of white copperas grinded in walnut oil.

5. When in place of litharge or copperas the ficcative oil is employed, it requires a quarter of this oil to every pound of colour.

The ficcative oil is prepared of one half ounce of litharge, as much of calcined ceruse, as much of *terre d'ombre*, a colour with which the French paint shadows, and as much of tale boiled for two hours on a slow and equal fire, with one pound of linseed oil, and stirred the whole time. It must be carefully skimmed and clarified, and the older it grows it is better.

§ 3. Observations on the Quantities of Substances and Liquids.

1. Ochres and earths require more liquids both in grinding and diluting than ceruse.

2. Different quantities of liquids are required in the grinding only on account of greater or less dryness; but in diluting, the quantity is always the same.

3. For the first layer after the priming, which has no relation to the colours laid on afterwards, to a square fathom give fourteen ounces of ceruse, about two ounces of liquid to grind, and four ounces to dilute it. If there is a second layer of the same materials, the quantities will require to be less.

4. It will require three pounds of colour for three layers of a square fathom. The first may consume eighteen ounces, the second sixteen, and the third fourteen.

5. To compose these three pounds of colour, take two or two and a half pounds of grinded colours, and dilute them in a pint or three half pints of oil, mixed with essence or pure oil. But if the first layer of ceruse is not used, there will be a necessity for a greater quantity of colours.

N. B. In the following kinds and applications of oil painting, we are to hold those proportions in our eye.

§ 4. Painting in simple Oil.

On doors and windows give a layer of ceruse grinded in oil of walnuts diluted in the same oil, together with a little ficcative; then give another layer of the same preparation; to which, if you want a greyish colour, add a little black of charcoal and Prussian blue, grinded also in oil of walnuts. If to these you incline to add a third layer, grind and dilute it in pure walnut oil; observing that the two last layers be less clear, or have less oil in them, than the first; the colour in this case is more beautiful and less apt to blister with the sun.

Walls that are to be painted must be very dry; and this being supposed, give two or three layers of boiling linseed oil to harden the plaster; then lay on two layers of ceruse or ochre, grinded and diluted in linseed oil; and when these are dry, paint the wall.

To paint tiles of a slate colour, grind separately ceruse and German black in linseed oil; mix them together in the proportion which the colour requires, and dilute them in linseed oil: then give the first layer very clean to prime the tiles; and make the three next layers thicker, to give solidity to the work.

To paint arbours and all kinds of garden work, give

³¹
Of doors,
windows,
and win-
dow-shut-
ters.

³²
Of walls.

³³
Of tiles.

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Oil-colours34
Of arbours,
&c.35
Of statues
and vases.36
Painting
on the in-
side of the
house.37
Chairs,
benches,
stone, and
plaster.38
Steel-colour
for locks.39
Ballu-
strades and
railings.40
Wainscot-
ting of a-
partments.

give a layer of white ceruse grinded in oil of walnuts, and diluted in the same oil, with the addition of a little litharge, then give two layers of green, composed of one pound of verdegrise and two pounds of white lead, grinded and diluted in oil of walnuts. *N.B.* This green is of great service in the country for doors, window shutters, arbours, gardens, seats, rails, either of wood or iron; and in short for all works exposed to the injuries of the weather.

To whiten statues, vases, and all ornaments of stone, either within or without doors; first clean the subject well, then give one or two layers of white ceruse, grinded and diluted in pure oil of pinks, and finish with giving one or many layers of white lead prepared in the same manner.

If you wish to paint on walls not exposed to the air, or on new plaster, give one or two layers of boiling linseed oil, and continue the brush till the walls are fully soaked; then give a layer of white ceruse, grinded in oil of walnuts and diluted with three fourths of the same oil and one fourth essence; and lastly, give two layers more of white ceruse, grinded in oil of walnuts and diluted in oil mixed with essence, if it is not to be varnished; but in pure essence if it is. It is in this manner that walls are painted white. If you adopt another colour, it is necessary to grind and dilute it in the same quantities of oil and essence.

To paint chairs, benches, stone, or plaster, give a layer of white ceruse grinded in oil of walnuts and diluted in the same oil, into which you have cast a little litharge to make it dry; then apply a layer of the tint you fix on, grinded in oil and diluted in one part oil and three parts essence; and afterwards give two more layers of the same tint grinded in oil and diluted in pure essence: This may be varnished with two layers of spirit of wine.

To make a steel colour, grind separately in essence, white ceruse, Prussian blue, fine lac, and verdegrise. The tone which you require is procured by the proper mixture of those ingredients. When you have fixed on the tone of colour, take about the size of a walnut of the ingredients, and dilute them in a small vessel in one part of essence and three parts of white oily varnish. *N.B.* This colour is generally made of white ceruse, of black charcoal, and Prussian blue, grinded in thick oil, and diluted in essence, which is the cheapest method of procuring it; but the former is the most beautiful.

For painting ballustrades and railings, dilute lamp-black with varnish of vermilion; giving two layers of it, and afterwards two layers of spirit-of-wine varnish.

Since the discovery of oil-painting, and the knowledge that wood is preserved by it, and especially since the discovery of a varnish without smell, and which even takes away that of oil, the painting of apartments in oil has been with justice preferred.

In fact the oil stops up the pores of the wood; and although it does not altogether resist the impression of moisture, yet the effect is so little perceptible, that it is to be recommended as the best method of preserving wood.

To preserve wainscotting in the most effectual manner from moisture, it is necessary to paint the wall be-

hind it with two or three layers of common red, grinded and diluted in linseed oil.

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Oil-colours.

To paint the wainscotting itself, give a layer of white ceruse grinded in oil of walnuts, and diluted in the same oil mixed with essence. This layer being dry, give two more of the colour you have adopted, grinded in oil and diluted in pure essence. If you wish the mouldings and sculpture to be painted in a different colour, grind and dilute it in the same manner.

Two or three days after, when the colours are fully dry, give two or three layers of your white varnish without smell, and which also prevents the offensive smell of the oil colours. *N.B.* Those who begin their operations in water colours, if they find it more agreeable, may finish it in oil colours as above.

When the pores of the wood are well stopped by the prepared white, a layer of white ceruse grinded in oil of walnuts, and diluted in the same oil, mixed with essence, may be applied. This will be sufficient, the wood being previously primed; and afterwards lay on your intended colour and varnish.

§ 5. *Painting in Oil with the polished Varnish.*

This is the best kind of oil-painting, owing more to the care it requires than to the proceedings, for they are nearly the same with those of simple oil-painting; the difference consisting only in the preparation and manner of finishing.

To paint wainscottings of apartments with the polished varnish, it is necessary, in the first place, that the pannels be new. Then,

41
Wainscot-
tings.

1. Make the surface of the subject which you mean to paint very smooth and level, which is done by a layer, which serves to receive the hard tint or polished ground and the colours.

This layer ought to be of white, whatever colour you are afterwards to apply. It consists of white ceruse, grinded very fine in linseed oil, with a little litharge, and diluted in the same oil mixed with essence.

2. Make the polished ground by seven or eight layers of the hard tint. In painting equipages, a dozen is necessary.

The hard tint is made, by grinding pure white ceruse, which has not been much calcined, very finely in thick oil, and diluting it with essence. You must take care that the layers of the hard tint be not only equal as to the application, but to the quantity of the white ceruse and the oil, and to the degree of calcination. Then,

3. Soften this ground with pumice-stone.

4. Polish it moderately with a piece of serge soaked in a pail of water, in which you have put some powder of pumice-stone finely grinded and passed through a fine sieve. There is no occasion to spare washing, as this part of the operation will not spoil with water.

5. Choose the tint with which you intend to decorate your apartment; grind it in oil, and dilute it in essence; pass it through a piece of very fine silk, give two or three layers carefully and thinly spread over the surface, as on this part of the operation depends in a great measure the beauty of the colour. All sorts of colours

Painting in colours may be employed in this manner in oil of essence. The Proportion of Colours.

6. Give two or three layers of a spirit-of-wine varnish, if it is to wainscoting; if to the body of a coach, a varnish of oil is employed. If the varnish is to be polished, it is necessary to give seven or eight layers at least, laid on equally and with great precaution, not to be thicker in one place than another, which occasions spots.

7. It is again polished with pumice-stone reduced to powder, and water and a piece of serge. If the wainscoting has been painted before, it is necessary to rub off the colour till you come to the hard tint, which is done with pumice stone and water, or with a piece of linen dipped in essence.

⁴²
White var-
nish polish
in oil.

There is a white painting in oil, called *white varnish polish*, which corresponds to the king's white in water colours, and is equal to the freshness and gloss of marble if it is applied to wood. To paint in this manner,

1. Give a layer of white ceruse grinded in oil of walnuts, with a little calcined copperas, and diluted in essence. But if it is applied to stone, it is necessary to employ oil of walnuts and calcined copperas alone.

2. Grind white ceruse very fine in essence, and dilute it in fine white oil varnish with copal.

3. Give seven or eight layers of it to the subject.—The varnish mixed with the white ceruse dries so promptly, that three layers of it may be given in a day.

4. Soften and polish all the layers as above.

5. Give two or three layers of white lead grinded in oil of walnuts, and diluted in pure essence.

6. Give seven or eight layers of white spirit-of-wine varnish, and then polish them.

§ 6. Of painting in Varnish.

To paint in varnish, is to employ colours grinded and diluted in varnish, either in spirits of wine or oil, on all sorts of subjects. Wainscoting, furniture, and equipages, are painted in this manner, though we shall confine ourselves to the first.

1. Give two layers of white of Bougival, diluted in a strong size boiling hot.

2. Give a layer of what the French call *de blanc apprêt*.

3. Fill up the defects of the wood with mastich in water; and when the layers are dry, smooth them with the pumice-stone.

4. When the wood is smooth, suppose the paint a grey colour, take one pound of white ceruse, one drachm of Prussian blue, or of black of charcoal or ivory black; put the white into a piece of leather, so tied that the colours cannot escape; shake them till they are sufficiently mixed.

5. Put two ounces of colours into a quatern of varnish, mix them carefully; give one layer above the white.

6. This layer being dry, put one ounce of colours into the same quantity of varnish as above, and give a second layer.

7. To the third layer give half an ounce of colour to the same quantity of varnish.

8. As each of these layers dry, be careful to rub them with a piece of new coarse cloth, in such a man-

ner, however, as not to injure the colour. N. B. The three layers may be given in one day.

9. If you want to give a perfect lustre, add a fourth layer prepared as the third.

All other colours, as blue, &c. may be applied in the same manner. This method is the only one by which orpiment can be employed in all its beauty, but not without some of its inconveniences.

Another manner of performing this kind of work, is to apply the colours and the varnish without previously using the size and the white ground. This is extremely expeditious, but it is easy to perceive it will want the polish and brilliancy of the other.

SECTION IV.

We cannot perhaps more properly conclude this article, than with an account of M. de Morveau's attempts to render more perfect the proportion of colours, and especially of *white*, employed in painting. These we shall extract from a memoir of his read in the academy of Dijon.

"White (says the ingenious academician) is the most important of all colours in painting. It affords to the painter the materials of light, which he distributes in such a manner as to bring his objects together, to give them relief, and that magic which is the glory of his art. For these reasons I shall confine my attention at present to this colour.

"The first white which was discovered, and indeed the only one yet known, is extracted from the calx of lead. The danger of the process, and the dreadful distemper with which those employed in it are often seized, have not yet led to the discovery of any other white. Less anxious, indeed, about the danger of the artist than the perfection of the art, they have varied the preparation, to render the colour less liable to change. Hence the different kinds of white, viz. white of crems in Austria, white lead in shells, and white ceruse. But every person conversant in colours, knows that the foundation of all these is the calx of lead, more or less pure, or more or less loaded with gas. That they all participate of this metallic substance, will indeed appear evident from the following experiment, which determines and demonstrates the alterability of colours by the phlogistic vapour.

"I poured into a large glass bottle a quantity of liver of sulphur, on a basis of alkali, fixed or volatile, it makes no difference; I added some drops of distilled vinegar, and I covered the mouth of the bottle with a piece of pasteboard cut to its size, on which I disposed different samples of crems; of white lead, and of ceruse, either in oil or in water; I placed another ring of pasteboard over the first, and tied above all a piece of bladder round the neck of the bottle with a strong packthread. It is evident, that in this operation I took advantage of the means which chemistry offers to produce a great quantity of phlogistic vapour, to accomplish instantaneously the effect of many years; and, in a word, to apply to the colours the very same vapours to which the picture is necessarily exposed, only more accumulated and more concentrated. I say the same vapour, for it is now fully established, that the smoke of candles, animal exhalations of all kinds, alkaliescent odours, the electric effluvia, and even light, furnish continually

Proportion of Colours. continually a quantity more or less of matter, not only analogous, but identically the same with the vapour of vitriolic acid mixed with sulphur.

"If it happens that the samples of colours are sensibly altered by the phlogistic vapour, then we may conclude with certainty, that the materials of which the colours are composed, bear a great affinity to that vapour; and since it is not possible to preserve them entirely from it in any situation, that they will be more or less affected with it, according to the time and a variety of circumstances.

"After some minutes continuance in this vapour, I examined the samples of colours submitted to its influence, and found them wholly altered. The ceruse and the white lead both in water and oil were changed into black, and the white of creams into a brownish black; and hence those colours are bad, and ought to be abandoned. They may indeed be defended in some measure by varnish: but this only retards for a time the contact of the phlogistic vapour; for as the varnish loses its humidity, it opens an infinite number of passages to this subtile fluid.

"After having ascertained the instability of the whites in common use, I made several attempts to discover such as would prove more lasting; and tho' many of these attempts were without effect. I shall give a succinct account of the whole, which may save a great deal of trouble to those who wish to travel over the same field.

"There are three conditions essential to a good colour in painting.

"*First*, That it dilute easily, and take a body both with oils and with mucilages, or at least with the one or other of these substances, a circumstance which depends on a certain degree of affinity. Where this affinity is too strong, a dissolution ensues; the colour is extinguished in the new composition, and the mass becomes more or less transparent; or else the sudden re-action absorbs the fluid, and leaves only a dry substance, which can never again be softened. But if the affinity is too weak, the particles of colour are scarcely suspended in the fluid, and they appear on the canvass like sand, which nothing can fix or unite.

"The *second* condition is, That the materials of which colours are composed do not bear too near an affinity with the phlogistic vapour. The experiments to which I submitted whites from lead, is an infallible means of ascertaining the quality of colours in this respect, without waiting for the slow impression of time.

"A *third* condition equally essential is, That the colouring body be not volatile, that it be not connected with a substance of a weak texture, susceptible of a spontaneous degeneracy. This consideration excludes the greater part of substances which have received their tint from vegetable organization; at least it makes it impossible to incorporate their finer parts with a combination more solid.

"After these reflections, my researches were directed, first, to the five pure earths; next, to the earthy compounds; in the third place, to the earthy salts, which can scarcely be dissolved; lastly, to the metallic earths, either pure or precipitated by Prussian alkali. M. Wenzel has discovered a sixth earth, which I call *eburne*, and which, after other experiments, I thought of applying to the purposes of painting; but I soon

perceived that it would have the same fault with other kinds of earth, and, besides, that it could not be obtained but at a very considerable expence.

"The five pure earths possess fixity in a very great degree, and at the same time are little affected by the phlogistic vapour; but they refuse to unite with oil or mucilages, and the white is totally extinguished when they are grinded with these liquids. I made several attempts on earth from alum, not only because M. Beaume recommended the use of it in painting, and because it enters into the composition of Prussian blue, but also because it is a chief ingredient in ochres, and other earths of that nature, which supposes that it should unite in a certain degree with diluting liquors; notwithstanding, in whatever manner I treated it, it would not yield a white; but one will be less surprised at this want of success, when he considers, that in the ochres and Prussian blue, the earth from alum is only the vehicle of the colouring body, whereas here it is the colour itself.

"To be convinced of the truth of this observation, it is only necessary to mix equal parts of this earth, or even of clay not coloured, with ceruse or any other white: the mixture will be susceptible of being grinded in oil or in gum without being extinguished; it will easily unite with any coloured substance, and be productive of no bad consequences to the pure earths.

Nature and art present to us a considerable number of earthy compositions sufficiently white for the purposes of painting: such as the jasper white, the feldspat white, the schirl white, &c. But all these substances, in all the trials which I made, had the fault which I have already mentioned; and originating from the same cause, they wanted a fixed colouring body, which would not change when it is pulverised, nor be extinguished when it is diluted.

"The ultramarine blue, which is extracted from the blue jasper, and known by the name of lapis lazuli, seems at first view to warrant the possibility of appropriating to painting all the opaque half-vitrified compositions of the nature of jasper.

"Prepossessed with this idea, I conceived the hope of producing a true white lapis; but I soon perceived that the experiment confirmed the principle which I had laid down from my observations on pure earths; since it is not the substance peculiar to the jasper which constitutes the ultramarine blue, but the metallic substance which accidentally colours this particular kind of jasper.

"In the same manner, art in this imitation of nature should have for its object to give a permanent base to a colour already formed, to fix it without altering, and to augment perhaps its splendor and its intensity, without attempting to produce a colour.

"In excepting from earthy and metallic salts all those of which the acid is not completely saturated, which would easily attract the humidity of the air, or which would be easily dissolved, you have but a very small number to make experiments on.

"The natural and artificial *selenite* gives with oil a paste without colour, and tasting somewhat like honey; its white is better preserved with a gum, but even in this case it resembles a half transparent pap.

"The nature or regenerated *spat perant* is the most likely salt to produce white. As it is of all others the most

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of Colours.

most difficult to dissolve, it appears after pulverization to be a very fine white, but is scarcely touched with oil when it becomes grey and half transparent: the mucilage alters it also, although less discernibly; and it does not even resume its white colour after it becomes dry on the canvass.

"The same is the case with *calcareous borax*, formed by the dissolution of borax in lime-water; its white is completely extinguished with oil, less so with gum; but it hardens so instantaneously with the latter, that it is impossible ever to dilute it again.

"Calcareous tartar, obtained by casting quick-lime into a boiling dissolution of cream of tartar, is affected with oil in the same manner as selenite; but with mucilaginous water it gives a pretty good white, only possessed of little reflection, and appearing like plaster; it applied very well to the canvass, and resisted the phlogistic vapour.

"According to M. Weben, in his work intitled *Fabriken und Kunste*, published 1781, the white called in Germany *krembscher wies*, is nothing but the vitriol of lead, prepared by dissolving lead in nitrous acid, and precipitating it in vitriolic acid; and forming it afterwards into solid tablets by means of gum water. It is certain that this resembles in no shape the white called in France the white of crems; at least I never found that it could be dissolved in vinegar; but I tried the white prepared in M. Weben's manner, and the result was the same as above, that is to say, it turned completely black.

"The vitriols of lead and of bismuth alter more speedily than the calces of those metals. And thus, with the exception of calcareous tartar, which may be of some use in water-colours, the best earthy salts on which I have made experiments, may all, or the most of them, give a base to some colours, but cannot constitute by themselves a colour useful in painting.

"Of the fifteen known metallic substances, there are nine which yield white calces; namely, silver, mercury, lead, tin, antimony, bismuth, zinc, arsenic, and manganese.

"Of these nine substances, we may almost pass over silver and mercury; because, though they yield a very fine white, precipitated by means of crystallised vegetable alkali, yet it is soon altered when exposed to the air; that from silver changing into black, and that from mercury into yellow.

"It is well known that lead gives a very good white, and one which unites easily with oil or size; but that it is extremely liable to change, has been my principal object to prove; and the experiments which I have made place it beyond contradiction.

"I shall only add, that if there is a preparation able to correct this fault, it should be the precipitation of the earth of this metal in its acetous dissolution by Prussian alkali; but the white which results from this preparation becomes sensibly brownish when it is exposed a few minutes only to the phlogistic vapour.

"It would be therefore unreasonable to persevere in the use of this substance, or to wish to render it fixed, since the changes which it undergoes do not alter its nature, and the indestructible order of its affinities.—

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of Colours.

The calx of tin is easily applied to any purpose, and experiences no change from the concentrated phlogistic vapour. These considerations induced me to endeavour to obtain this calx perfectly white; and here follows the result of my operations: The tin of calcined *melac* gives a pretty white calx; but whatever attention I paid to take off the red surface which the violence of the fire occasioned, it takes always a shade of grey when it is diluted. Tin calcined by nitre in fusion, gives a tarnished and gross calx, which multiplied washings could not deprive of a yellowish tint.

"Having precipitated, by means of crystallised vegetable alkali, a dissolution of English tin, which had been made in the muriatic acid, after the manner of M. Bayen to extract the arsenic, I had a calx of the greatest whiteness, so light that it buoyed up to the surface of the liquor, and so thin that the greater part of it passed through the filter; but it experiences at the same time a kind of adherence with the salts, which makes the part of it retained by the filter incapable of being pulverised, gummy, half transparent, and even a little changed into yellow. In this condition it is extinguished when diluted; it is necessary, therefore, to moisten it in boiling water, and afterwards to calcine slightly the sediment after it has had sufficient time to settle.

"I have tried the calcination by means of moisture, in employing the tin of the purest *melac*, and a rectified nitrous acid, according to the method of Meyer. It formed a very white sparkling calx, which remained in the filter in the consistency of jelly.—Meanwhile, I observed that it was always a little yellow by the mixture of a portion of that earth which took, in the operation, the colour of turbith mineral.

"A very fine white calx is extracted from antimony, calcined by nitre in fusion; but the earth of this semi-metal must be placed in the number of those which combine too easily with the phlogistic vapour. The diaphoretic antimony, grinded in oil, took in ten minutes in my phlogistic apparatus a colour somewhat like sulphur.

"The property of bismuth to give a very fine white calx, known by the name of *magistery*, or white sard, is generally known; it is easily prepared, since it is only necessary to dissolve the bismuth in nitrous acid, and to precipitate the dissolution by pure water: it dilutes perfectly with oil and mucilages. But this colour ought to be rejected, as the most alterable by the phlogistic vapour. It became completely black in ten minutes in my apparatus; and this fact is also proved from what happens to women who use this colour, when they are exposed to the vapours of sulphur, of garlic, or of any putrid substances.

"Zinc furnishes by all the processes of calcination and precipitation a pretty white calx, when it is pure and separated from iron; otherwise the dissolutions of the vitriol of zinc will become yellow when exposed to the air. I have precipitated those dissolutions by lime-water, by caustic, and effervescent alkalis; I have calcined this semi-metal alone and with nitre; and in all those operations I have obtained an earthy substance of different degrees of whiteness, which, after it was dried and prepared, mixed readily with oil and mucilages

Proportion of Colours. mucilages without losing its colour; and which experienced no sensible change when exposed to the phlogistic vapour.

"These valuable properties, the chief object of my researches, engaged me to multiply my experiments, to determine at once the most economical process, and the most advantageous and infallible preparation.—These attempts have convinced me, that the calcination of this semi-metal alone in a crucible, placed horizontally on the corners of a reverberating furnace, gives the purest, the whitest, and the least reducible calx; and that to make an excellent colour, it is sufficient to separate the parts not burned with water, and grind it with a little of the earth of alum or chalk to give it a body. Zinc precipitated in Prussian alkali, even in distilled vinegar, retains always a shade of yellow, does not unite so well in oil, and takes a demi-transparent consistence like cheese.

"White arsenic extinguishes much less in diluting than one would believe from its saline nature; it preserves its colour best in gum-water; and it is remarkable, that instead of turning black in the phlogistic vapour, it takes a very distinct shade of yellow. This property is sufficiently singular and constant to furnish a new method of analysing arsenic, so as to know it. And this alteration of colour makes it of no use in painting, although its deleterious qualities did not forbid the practice.

"The semi-metal known by the name of *manganese* gives also a white calx. I had at first great hopes from this colour, as, contrary to all those extracted from the other metals, it became white by the phlogistic vapour. There remained, therefore, but one difficulty to overcome, viz. to separate from the manganese the portion of iron which it usually contained, and which intallibly makes the earth a little yellow. To accomplish this in the cheapest manner, I submitted the black ore of the manganese to a long calcination, to render its iron insoluble; I afterwards applied vinegar to it, after the example of M. de la Peyrouse; and in precipitating the dissolution by effervescent alkali, I easily obtained a pure white precipitate. But I soon perceived that the facility with which a colouring body loses its phlogiston, is no less an inconveniency than that of attracting it, and productive of the same alterations.

"The white of manganese became very soon yellow when exposed to the air; and this is not to be ascribed to the iron contained in it, since neither the galls nor Prussian alkali had discovered any of it in the dissolution. This substance, therefore, can be of no use in producing a white colour for painting."

The experiment by which M. de Morveau tried the colours not alterable by the phlogistic vapour, was performed before the academy, the prince of Conde being president. "I placed (says he) in my apparatus pieces of cloth, on which were laid the white of calcareous tartar in water, different preparations of white from tin and zinc, in oil and water; and I al-

lowed them to continue exposed to the phlogistic vapour during a sitting of the academy: if they were not altered, their superiority over the whites in use would be sufficiently established. The sitting continued for near an hour; and the bottle having been opened, all the colours continued to have the same shade which they had before. I can, therefore, recommend to painters those three whites, and particularly that of zinc, the preparation of which is exposed to less variation, the shade more lively and uniform, and moreover it is fit for all purposes, and perhaps procured at less expence.

"I will assert farther, that it may be procured in sufficient quantities to supply the place of ceruse in every branch of the art, even in interior house-painting:—I would recommend it, less with the view of adding new splendor to this kind of ornament, than for the safety of those who are employed in it, and perhaps for the safety of those who inhabit houses ornamented in this manner.

"But without being too sanguine, altho' the processes in the fabrication be simplified in proportion to the demand, as is usually the case, yet there is reason to apprehend, that the low price of ceruse will always give it the preference in house-painting. With regard to those who apply colours to nobler purposes, they will not hesitate to employ the white of zinc. I am assured that four franks is paid for the pound of white of crems; and I believe the white in question, prepared in the manner which I have pointed out, might be sold for six.

"M. Courtors, connected with the laboratory of the academy, has already declared that it is used for house-painting; less, however, in regard to its unalterability, than to its solubility; and this can be the more readily believed, as the flower of zinc enters into many compositions of the apothecary. The same M. Courtors has arrived at the art of giving more body to this white, which the painters seemed to desire, and also of making it bear a comparison with white lead either in water or oil. The only fault found with it, is its drying slowly when used in oil; but some experiments which I have made, incline me to believe that this fault may be easily remedied, or at least greatly corrected, by giving it more body. At any rate, it may be rendered siccative at pleasure, by adding a little vitriol of zinc or copperas slightly calcined.

"Painters already know the properties of this salt, but perhaps they do not know that it mixes with the white of zinc better than with any other colour; the reason is, they have chemically the same base. It is prepared by purging the white copperas of that small portion of iron which would render it yellow; and this is easily done in digesting its dissolution, even when cold, on the filings of zinc.

"The mixture of this salt thus prepared is made on the pallet, without producing any alteration, and a small quantity will produce a great effect."

Pair,
Pairing.

PAIR; two of a sort, a couple.

PAIRING, the uniting or joining in couples.

The instinct of pairing is bestowed on every species of animals to which it is necessary for rearing their young; and on no other species. All wild birds pair; but with a remarkable difference between such as place their nests on trees and such as place them on the ground. The young of the former, being hatched blind, and without feathers, require the nursing care of both parents till they be able to fly. The male feeds his mate on the nest, and cheers her with a song. As soon as the young are hatched, singing yields to a more necessary occupation, that of providing food for a numerous issue; a task that requires both parents.

Eagles and other birds of prey build on trees, or on other inaccessible spots. They not only pair, but continue in pairs all the year round; and the same pair procreates year after year. This at least is the case of eagles: the male and female hunt together, unless during incubation, at which time the female is fed by the male. A greater number than a single pair are never seen in company.

Gregarious birds pair, in order probably to prevent discord in a society confined to a narrow space. This is the case particularly of pigeons and rooks. The male and female sit on the eggs alternately, and divide the care of feeding their young.

Partridges, plovers, pheasants, sea-fowl, grouse, and other kinds that place their nests on the ground, have the instinct of pairing; but differ from such as build on trees in the following particular, that after the female is impregnated, she completes her task without needing any help from the male. Retiring from him, she chooses a safe spot for her nest, where she can find plenty of worms and grass-seed at hand; and her young, as soon as hatched, take foot, and seek food for themselves. The only remaining duty incumbent on the dam is, to lead them to proper places for food, and to call them together when danger impends. Some males, provoked at the desertion of their mates, break the eggs if they stumble on them. Eider ducks pair like other birds that place their nests on the ground; and the female finishes her nest with down plucked from her own breast. If the nest be destroyed for the down, which is remarkably warm and elastic, she makes another nest as before. If she is robbed a second time, she makes a third nest; but the male furnishes the down. A lady of spirit observed, that the eider duck may give a lesson to many a married woman, who is more disposed to pluck her husband than herself. The black game never pair: in spring, the cock on an eminence crows, and claps his wings; and all the females within hearing instantly resort to him.

Pairing birds, excepting those of prey, flock together in February, in order to choose their mates. They soon disperse; and are not seen afterward but in pairs.

Pairing is unknown to quadrupeds that feed on grass. To such it would be useless; as the female gives suck to her young while she herself is feeding. If M. Buffon deserves credit, the roe-deer are an exception. They pair, though they feed on grass, and have but one litter in a year.

Beasts of prey, such as lions, tygers, wolves, pair not. The female is left to shift for herself and for her

young; which is a laborious task, and often so unsuccessful as to shorten the life of many of them. Pairing is essential to birds of prey, because incubation leaves the female no sufficient time to hunt for food. Pairing is not necessary to beasts of prey, because their young can bear a long fast. Add another reason, that they would multiply so fast by pairing, as to prove troublesome neighbours to the human race.

Among animals that pair not, males fight desperately about a female. Such a battle among horned cattle is finely described by Lucretius. Nor is it unusual for seven or eight lions to wage bloody war for a single female.

The same reason that makes pairing necessary for gregarious birds, obtains with respect to gregarious quadrupeds; those especially who store up food for winter, and during that season live in common. Discord among such would be attended with worse consequences than even among lions and bulls, who are not confined to one place. The beavers, with respect to pairing, resemble birds that place their nests on the ground. As soon as the young are produced, the males abandon their stock of food to their mates, and live at large; but return frequently to visit them while they are suckling their young.

Hedgehogs pair as well as several of the monkey-kind. We are not well acquainted with the natural history of these animals; but it would appear that the young require the nursing care of both parents.

Seals have a singular œconomy. Polygamy seems to be a law of nature among them, as a male associates with several females. The sea-turtle has no occasion to pair, as the female concludes her task by laying her eggs in the sand. The young are hatched by the sun, and immediately crawl to the sea.

PAISLEY, a town of Renfrewshire, in Scotland, situated about six miles and a half west of Glasgow, on the river White-Cart, over which there are two stone-bridges of two arches each, and one which consists of three arches. The town is very ancient; but was of much less consequence formerly than it is at present. "No satisfactory etymology has hitherto occurred of the name *Paisley*. The following has been suggested by a good Gaelic scholar: 'A ridge of rocks that runs across the river, and forms a beautiful cascade, would, prior to the building of the town, be undoubtedly the most striking object that this place would present. The brow or face of a rock is in Gaelic *Pais-licht*. A church in front of the rock would be the church in *Pais-licht*. A church did stand here previous to 1160: it is named in the foundation charter *Ecclesia de Pafellet*, Latinized, in the records of the monastery, *Paflatum*, an easy derivative from *Pais-licht*, in all probability the original of the modern *Paisley*.' It was erected into a burgh in barony by James IV. in the year 1488, at that time probably deriving all its importance from the rich monastery which had been established there for several ages; for George Schaw, who was then abbot of that monastery, obtained this privilege from the king. Even in Mr Crawford's time, who wrote the history of the shire of Renfrew near the beginning of this century, it seems to have been but an inconsiderable place; for he describes it as consisting only of one principal street, about half a mile in length, with several lanes belonging to it; whereas now

Pairing,
Paisley.

Kames's
Sketches,
vol. i.
p. 198.

Statistical
Account of
Scotland,
vol. vii.

Paisley. now the town, with its suburbs, occupies such an extent of ground, that strangers are apt to consider it as, next to Edinburgh and Glasgow, the largest and most populous town in Scotland. Its buildings of late years have been greatly improved; its streets are well paved; and the different parts of the town and suburbs, where the river intervenes, are connected with one another by three bridges at convenient distances."

The affairs of the community are managed by three bailies, of which the eldest is commonly in the commission of the peace, a treasurer, a town-clerk, and 17 counsellors, who are annually elected upon the first Monday after Michaelmas. It enjoys all the powers necessary for government and police, without any of the burdens to which royal boroughs are subjected. The freedom of the place is conferred on very moderate terms. The revenues of the town are not great, but they have been managed to the best advantage. The rapid increase of the place has not been attended with a proportional increase of revenue; therefore several necessary improvements, and intended public buildings, are not yet carried into execution. It gives the title of baron to the earls of Abercorn; the first of whom was a younger son of the Duc de Chatelherault. The *black-book of Paisley*, frequently mentioned in Scottish history, was a chronicle of the public affairs and remarkable events, kept by the monks who resided in the monastery. It agreed in every material fact with the *Scoti-chronicon* of Fordun; and is by many thought to be the same performance.

The old part of the town runs from east to west upon the south slope of a ridge of hills, from which there is a fine prospect of the city of Glasgow and the adjacent country; but to the southward, the view terminates in a ridge of green hills, about two miles distant. Including the late buildings and suburbs, it is fully a mile long, and nearly as much in breadth. On the east side of the river Cart, stand the abbey and new town. This new town was some years ago fenced off by the earl of Abercorn, and now consists of a number of handsome buildings. The streets are laid off in a regular manner, but (rather unfortunately for the conveniency and elegance of some of the houses) not in right angles. Here the earl of Abercorn has built at his own expence one of the largest, most commodious, and most elegant inns in Scotland. In the vicinity of this his lordship is likewise to build several convenient and necessary market-places. A little way south of the inn stands the abbey-church, the only one which Paisley formerly required. This church, when entire, has been a most noble building, and consisted of several distinct and separate places of worship: what now remains of this magnificent Gothic structure is not yet unworthy the notice of the curious in antiquities. Mr Pennant says, the great north window is a noble ruin, the arch very lofty, the middle pillar wonderfully light, and still entire: only the chancel now remains, which is divided into a middle and two side-isses, all very lofty pillars, with Gothic arches; above these is another range of pillars much larger, being the segment of a circle, and above a row of arched niches from end to end, over which the roof ends in a sharp point. The outside of the building is decorated with a profusion of ornaments, especially the great west and north

Paisley. doors, than which scarce any thing lighter or richer can be imagined.

The town of Paisley continued a part of the original or abbey parish of Paisley till the year 1738; when the magistrates and council having purchased the right of patronage from the then earl of Dundonald, a new church was built, and the town was erected into a separate parish. This is called the *Laigh Church*, is built in the form of a Greek cross, very well laid out, and capable of containing a great number of people. In 1756 another church was built, upon a very extended plan, to accommodate its multiplied inhabitants; in which, though it is one of the largest in Scotland, yet the most distant of the congregation can hear a tolerably good speaker with ease and distinctness; and as it stands upon the highest part of the town, it was afterwards ornamented with a lofty and well-proportioned spire visible at a great distance. This is called the *High Church*, and is a very fine building: it is an oblong square of 82 feet by 62 within the walls, built of free-stone well smoothed, having rustic corners and an elegant stone cornice at the top. In the construction of the roof (which is a pavilion covered with slate, having a platform covered with lead on the top), there is something very curious, and it is admired by every person of taste. In 1781, the number of the inhabitants still rapidly increasing, another church, called the *Middle Church*, was built, not quite so large as the former, but very handsomely and elegantly finished: and in the following year, the town was divided and erected into three separate parishes, exclusive of the Abbey parish, and named according to their respective churches.

There are two large dissenting congregations in the town; those of the Antiburgher persuasion and the Relief. The first of these has existed there for upwards of 30 years; the other is of a late date. There is besides a small congregation of Cameronians.

The town-house is a very handsome building of cut stone, with a tall spire and a clock. The flesh-market has a genteel front of cut stone, and is one of the neatest and most commodious of the kind in Britain. Butchers-meat, butter, cheese, fish, wool, and several other articles, are sold here by what they call the tron-pound, of 22 English ounces and an half.

The poor-house is a large building, very well laid out; and stands opposite to the quay, in a fine free air. It is supported by a small tax laid upon the inhabitants quarterly.

Close by the Abbey-church is the earl of Abercorn's burial-place, the greatest curiosity in Paisley. It is a vaulted Gothic chapel, without pulpit, pew, or any other ornament, but has the finest *echo* perhaps in the world. When the end door (the only one it has) is shut, the noise is equal to a loud and not very distant clap of thunder. If you strike a single note of music, you hear the sound gradually ascending, with a great number of repetitions, till it dies away as if at an immense distance, and all the while diffusing itself thro' the circumambient air. If a good voice sings, or a musical instrument is well played upon, the effect is inexpressibly agreeable. The *deepest*, as well as the most *acute tones*, are distinctly reverberated, and these in regular intervals of time. When a musical instrument

Paisley. is founded, it has the effect of a number of instruments of a like size and kind playing in concert. When a number of different instruments in unison sounds the same note, a good ear is able to distinguish the variety of sound produced by each. A single instrument sounding a particular note, and then instantly its fifth, or any other concordant note, the two sounds can be heard, as it were, running into and uniting with each other in a manner peculiarly agreeable. But the effect of a variety of instruments playing in concert is particularly charming, and must excite such emotions in the soul as it is impossible to describe. In this chapel is the monument of Marjory Bruce^(A); she was daughter of Robert Bruce, and wife of Walter, great steward of Scotland, and mother of Robert II. In this same chapel were interred Elizabeth Muir and Euphemia Ross, both consorts to Robert II.

A particular account of the abbey of Paisley would fill many pages. It was founded as a priory for monks of the order of Clugni about the year 1160 by Walter great steward of Scotland. It was afterwards raised to the rank of an abbacy; and the lands belonging to it were by Robert II. erected into a regality, under the jurisdiction of the abbot. After the reformation, the abbacy was secularized by the Pope in favour of Lord Claud Hamilton, third son of the Duke of Chatelherault, in reward of his steady adherence to the cause of Queen Mary; and, in 1588, it was by the king and parliament erected into a temporal lordship, and Lord Claud was created Lord Paisley. The revenues of the abbacy were very considerable: They consisted of the tythes of 28 different parishes, with the property of the lordships of Paisley, of Kilpatrick in Dunbartonshire, and of Monkton in Ayrshire, extending each to a hundred merk land; and the forty pound land of Glen in Lochwinnoch; with the lands of Achengown, Grange, &c. and a considerable detached property in different parts of the kingdom. All this property, with the patronage of the several churches, fell to Lord Claud Hamilton, last abbot of Paisley. It continued in that family till 1653, when his grandson James Earl of Abercorn sold the lordship of Paisley to the Earl of Angus, who next year sold it to William Lord Cochran, Kilpatrick to Sir John Hamiltoun of Orbistoun, Monkton to Lord Bargenny, and Glen to Lord Semple and others. Great part of the lordship of Paisley was at different times sold off by the family of Dundonald; and what remained of it was in 1764 repurchased by the late Earl of Abercorn. The fabric of the abbey owed much of its magnificence to Abbot George Schaw, who about 1484 enlarged and beautified the building, surrounding the church, the precincts of the convent, the gardens, and

a small deer-park with a noble wall of hewn free-stone. *Paisley.* The abbey was after the reformation successively the seat of the Earls of Abercorn and Dundonald. The late Earl of Dundonald demolished the ancient gateway; and, by feuing off the immediately adjoining grounds for building, entirely changed the appearance of the place. As it was thus rendered totally unfit for a family residence, it has since that time been let out into separate dwellings, and is now in a very mean and almost ruinous state. The wall stood almost entire till 1781, when the garden being feued off for building upon by the late Earl of Abercorn, the wall was sold to the feuers, and the stones of it employed in their houses.

The vestiges of the Roman camp and *prætorium*, at the west end of the town, are at present almost annihilated. It was supposed to be vaulted underneath.

The number of inhabitants in the town of Paisley amounted in 1695 to 2200; in 1755 they were 4290; in 1782, 11,100; and in 1792 they were 13,800. At present the number of inhabitants in the town and suburbs certainly exceeds 20,000.

Paisley is now the first manufacturing town in Scotland, and is greatly celebrated on account of some of its branches. The manufactory of silk gauze, in this respect, first claims our notice. This branch is brought here to the utmost perfection, and is wrought to an amazing variety of patterns. It has been computed, that there have been no less than 5000 weavers employed in Paisley and in the country adjacent; and the number of winders, warpers, clippers, and others necessary in other parts of the silk-manufacture, has been likewise computed to be no less than 5000. Each loom will produce in an average value 70l. yearly; the whole will then be 350,000l.

It appears, from the best calculation that could be made, that in the year 1784 the manufactures of Paisley, in silk gauze, lawn and linen gauze, and white sewing thread^(B), amounted to the value of 579,185l. 16s. 6d. and that no fewer than 26,484 persons were employed in carrying them on. It is difficult to give an exact account of the state of its manufactures at present. The silk branch has evidently declined, but the muslin has so far come in its room, and the thread manufacture has considerably increased. There is, however, reason to conclude, that, though it is daily advancing, it has not yet recovered its former greatness. Besides these principal manufactures, there are some others carried on there of too much importance to be overlooked: for instance, considerable tan-works, four in number, two soap and candle works, a manufacture of ribbons, and another

(A) Her story is singular: In the year 1317, when she was big with child, she broke her neck in hunting near this place: the Cæsarian operation was instantly performed, and the child taken out alive; but the operator chancing to hurt one eye with his instrument, occasioned the blemish that gave him afterwards the epithet of *Bleat-eye*; and the monument is also styled that of *Queen Bleary*. Elizabeth Muir died before the accession of her husband Robert.

(B) This was introduced into this town about 60 or 70 years ago. A gentleman in this place lately discovered the method of making what is called *glazed white thread*, to as great perfection as that made by Mr Leland and Son, London. The value of this branch is computed at about 60,000l. annually.

Paisley. another of inkle or tape. In 1789 the annual value of all the manufactures in Paisley of every sort amounted to 660,385 l. 16s.

In the various weaving branches there were employed at Whitsunday 1791, in the suburbs of Paisley, 1108 looms, which, added to 2494 employed in the town, gives 3602 in all. But it is to be observed, that the extent to which the weaving branches are carried on by the manufacturers in Paisley, is not to be judged of from the number of looms in the town and suburbs. Besides about 150 in the country part of the parish, there are great numbers employed by them in the villages of Nielstoun, Bar-head, Beith, Dalry, Kilwinning, &c. &c. In 1744, when all the business was confined to the town and suburbs, there were 867 looms at work.—The thread-making in Abbey parish employs 9 mills, which, added to 128 employed in Paisley, makes 137 in all. The number in 1744 was 93. The spinning of cotton was introduced into Abbey parish in 1783. The principal seat of that manufactory is at Johnstoun, a neat and regularly built village about three miles west from Paisley, upon the estate of Mr Houston of Johnstoun. The feuing of that village was begun in 1782; and it contained, at Whitsunday 1792, 293 families, or 1434 souls. There are five companies established in it for cotton spinning. Two of these carry on their principal operations by water-machinery. In the two mills employed in them, there are going at present 11,672 spindles; but, when the whole machinery in both shall be completed, there will be 22,572. The number of persons, young and old, at present employed in both mills is 660. There is also in the neighbourhood of Paisley a calico printing work and a copperas work.

The bleaching business in the Abbey parish is carried on to a very considerable extent. There are 10 fields for whitening muslins and lawns, and about as many for thread, almost wholly employed by the manufacturers in Paisley. About 300 persons are at work in this branch of business, of whom about 240 are women, who are hired for the season. A soap and candle manufacture pays about 2000 l. of duty *per annum* to government, and has in some years paid upwards of 3000 l. A black and hard soap manufacture, 4500 l. *per annum*. The starch manufacture is but lately established. The distillery business is to be mentioned under this head: it has for some time past been carried on to a great extent, and the spirit manufactured in great perfection. A considerable quantity of it is exported, but too much of it is consumed at home.

The river on which Paisley stands runs from south to north; and falls into the Clyde, after it has joined the conflux of the rivers Grief and Black-Cart at Inchinnan bridge, about three miles below the town. At spring-tides, vessels of 40 tons burden come up to the quay. The communication by water is of great importance to the inhabitants: for in this way they are frequently served with fish of different kinds, and can send their goods and manufactures to Port-Glasgow and Greenock, and to Glasgow likewise; and now, by means of the great canal, they have also a communication with the firth of Forth.

The air here is moist; a necessary consequence of the prevailing south-west winds, which, coming loaded with vapour from the Atlantic, produce frequent and

heavy rains. The effects of this moist atmosphere appear in rheumatisms, quinsys, pneumonic ailments, and all the tribe of inflammatory disorders. Upon the whole, however, neither the town nor country adjacent can be said to be unhealthy. Contagions, indeed, at times visit this as other places, which run their usual course as epidemics; but none are remembered of any uncommon violence except a pleurisy in summer 1771, and which, contrary to the received opinion, was truly epidemic. There are no disorders that can be said to be endemic, unless scrofula is to be excepted, which is still but too common. This has been ascribed to the water used by the inhabitants in Paisley: It more probably proceeded from, it certainly was greatly aggravated by, poor living, and by the damp shops which were necessary for the linen manufacture; for since silk-weaving became the general employment, and increase of trade has introduced better living, this disorder is less frequent. From the same causes probably it is that swelled and fore legs, once extremely common here, are now but rarely met with. Dysentery raged with great violence in 1765; since that time it has been scarcely complained of. Nervous fevers at times appear; but they are neither very general nor uncommonly fatal. It is to be apprehended, that the confinement and sedentary posture of the weaver, and the laborious life of the bleacher, are frequent causes of consumptive complaints. Intermittents, which, from the damp air, and adjoining moss, might be expected to be common, are not so much as known. W. Long. 4. 20. N. Lat. 55. 52.

PAIX, a town of America, in the island of Hispaniola, and on the north coast. It was built by the French, to whom it is subject, and has a pretty good harbour. W. Long. 72. 55. N. Lat. 19. 58.

PAITA, a sea-port of America, in Peru, and in the audience of Quito. The town consists of about 200 houses but one story high; and the walls are made of split cane and mud, and the roofs only a covering of leaves. The only defence of Paita is a fort without either ditch or out-work; but is surrounded by a brick wall of little or no strength, on which are mounted eight pieces of cannon. It has frequently been plundered by the buccaneers; and Commodore Anson got possession of its fort in 1741, and took and burnt the town because the governor refused to ransom it. W. Long. 81. 19. S. Lat. 6. 12.

PALACE, PALATIUM, a name generally given to the dwelling-houses of kings, princes, and other great personages; and taking different epithets, according to the quality of the inhabitants, as *imperial* palace, *royal* palace, *pontifical* palace, *cardinal* palace, *ducal* palace, *episcopal* palace, &c.

It is customary in China to build palaces in honour of great ancestors. Hu-pi-lay, of the Mogul empire, in the year 1263, built one for his ancestors; and he is the first who borrowed this Chinese custom. Amongst the works of the ancient Egyptians, we have an account, in the Ancient Universal History, of a most magnificent palace in the Upper Egypt, not far from Aswan, the ancient Syene; the ruins whereof are enough to strike a spectator with astonishment. It is as large as a little city, having four avenues of columns, leading to as many porticoes. At each gate, between two pillars of porphyry, stand two gigantic figures of fine black

Paisley
||
Palace.

Palace
||
Palæpa-
phos.

black marble, armed with maces. The avenues consist of columns set three and three together, in a triangle, on one pedestal: on the chapter of each triangle is placed a sphinx and a tomb alternately. Every column is 70 feet high, all of one stone. There are in all the four avenues about 5000 or 6000 of these columns, a great many of which are fallen down.

The first hall of this palace is adorned with pieces of history, which seem as fresh as if the painting had not been long finished. In some places they have represented the hunting of antelopes; in others, feasts, and a great many young children playing with all kinds of animals. From thence you go into other apartments, incrusted with marble, the roof being supported with pillars of porphyry and black marble. Notwithstanding the vast quantity of rubbish, our author made shift to get up to the top of this building, from whence he had a prospect of the ruins of the greatest city that ever had been, as he thought, in the world. He supposes it might be the ancient Thebes; but that city stood much lower.

PALACE-Court. See MARSHALSEA.

PALÆMON, or MELICERTA. See MELICERTA.

PALÆMON (Q. Rhemmius), a famous grammarian of Rome, in the reign of Tiberius. He was born of a slave at Vienza. We are told he was first brought up in the business of a weaver: but attending his master's son to school, he used this opportunity to procure knowledge; and acquired so much skill in the common learning, that he obtained his freedom, and became a teacher or preceptor at Rome. His claim to learning cannot be questioned, since he is recorded as a scholar even by Juvenal:

*Quis gremio Enceladi doctique Palæmonis affert,
Quantum grammaticus meruit labor? Sat. 7.*

He had also an excellent memory, a ready elocution, and could make verses extempore. On account of these qualities, notwithstanding his debauched course of life, which was such that nobody was more unworthy to have the preceptorship of youth, he held the first rank among those of his profession. But his arrogance surpassed his merit: he had the confidence to assert, that learning was born when he was born, and would die when he died; and that Virgil had inserted his name in his Eclogues by a certain prophetic spirit: for that he, Palæmon, would infallibly become one day sole judge and arbiter of all poetry. He was excessively prodigal for the gratification of his voluptuous humour; insomuch that neither the immense sums he gained by teaching, nor the great profit he made both by cultivating his lands and in the way of traffic, proved a sufficient fund to support his extravagancies. We have only some fragments of his works.

PALÆOLOGUS (Michael), a very able man who was governor of Asia under the emperor Theodorus Lascaris; and who, by various stratagems and cruelties, procured the empire for himself and his posterity. See CONSTANTINOPLE, from n° 145 to the end of that article.

PALÆPAPHOS (Strabo, Virgil, Pliny), a town of Cyprus, where stood a temple of Venus; and an adjoining town called *Nea Paphos*; where St Paul struck Elymas blind, and converted the proconsul Sergius Paulus.

PALÆSTRA, in Grecian antiquity, a public building where the youth exercised themselves in wrestling, running, playing at quoits, &c. To prevent the combatants from hurting themselves by falling, the bottom of the palæstra was covered with dust or gravel. Some will have the palæstra to be only a part of the gymnasium. Many authors imagine that the palæstra was of two kinds; the one for the exercise of the body, the other for the cultivation of the mind: but the derivation of the word seems to confine it to bodily exercise.

We have this account of the palæstræ in Barthelemi's Anacharxis*: "They are nearly of the same form" Vol. ii. with the gymnasia. We visited the apartments appropriated to all the species of baths; those where the wrestlers leave their clothes, where they rub their bodies with oil to render their limbs supple, and where they roll themselves in the sand in order to give their antagonists a hold.

"Wrestling, leaping, tennis, and all the exercises of the lyceum, were here repeated before us with greater varieties, and with more strength and skill on the part of the performers. Among the different groups before us, we distinguished men of the most perfect beauty, and worthy of serving as models for artists; some with vigorous and boldly marked outlines, as Hercules is represented; and others of a more slim and elegant shape, as Achilles is described. The former, devoting themselves to wrestling and boxing, had no object but to increase their bodily strength; the latter, educated to less violent exercises, such as running, leaping, &c. confined themselves to acquirements of agility.

"Their regimen is suited to the different exercises for which they are designed. Some of them abstain from women and wine; others lead a very abstemious life; but those who make laborious exertions stand in need of a great quantity of substantial food, such as roasted beef and pork, to restore their strength. If they require only two minæ a-day, with bread in proportion, they give a very favourable idea of their temperance. But several are mentioned who have made a terrible consumption of provisions. Theagenes of Thasos, for instance, is said to have eaten a whole ox in a day. The same exploit is attributed to Milo of Crotona, whose usual quantity of food for a day was twenty minæ of meat, as many of bread, and three congii of wine. It is said likewise, that Astydamos of Miletus, when at the table of Ariobarzanes the Persian satrap, devoured alone the supper prepared for nine guests. These stories, no doubt exaggerated, prove at least the idea generally entertained of the voracity of this class of wrestlers. When they are able to gratify it without danger, they acquire extraordinary strength: their stature becomes sometimes gigantic; and their adversaries, struck with terror, either decline entering the lists, or sink under the weight of their enormous bodies.

"They are so oppressed by excess of nutriment as to be obliged to pass part of their lives in a profound sleep, and soon become so extremely corpulent as to be no longer known to be the same persons: this is succeeded by disorders which render them as wretched as they have always been unserviceable to their country; for it cannot be denied that wrestling, boxing, and

Palæstro-
phylax
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Palamedea.

and all those combats disputed with so much fury and obstinacy in the public solemnities, are no longer any thing but ostentatious exhibitions, since tactics have been brought to perfection. Egypt at no time adopted them, as they give only a temporary strength. Lacedæmon has corrected their inconveniences by the wisdom of her institutions. In the other states of Greece men have discovered, that, by subjecting their children to them, they incur the risk of injuring their shape and preventing their growth; and that, in a more advanced age, professed wrestlers never make good soldiers, because they are unable to support hunger, thirst, watching, the smallest wants, or the most trifling deviation from their usual habits." See PENTATHLUM and PANCRATIUM.

PALÆSTROPHYLAX, was the director of the palæstra, and the exercises performed there.

PALAMBOANG, or PALAMBANG, a town of Asia, in the East Indies, and in the island of Java, capital of a kingdom; seated at the east end of the island, on the straits of Bally, and separated from the island of Bally by a narrow channel. E. Long. 115. 10. S. Lat. 7. 10.

PALAMEDEA, in ornithology, a genus belonging to the order of grallæ. The character of this genus, according to Latham, is, the bill bends down at the point, with a horn, or with a tuft of feathers erect near the base of it; the nostrils are oval; the toes are divided almost to their origin, with a small membrane between the bottoms of each.

There are two species of it; the first of which is the palamedea cornuta, or horned screamer. It is about the size of a turkey; in length about three feet four inches. The bill is two inches and a quarter long, and black; the upper mandible is a little gibbous at the base, the under shuts beneath it, as in the gallinaceous tribe: the nostrils are oval and pervious, and placed near the middle of the bill. From the crown of the head springs a slender horn of more than three inches in length, and pointed at the end: the irides are the colour of gold: the plumage on the head, neck, and upper part of the body, is black, margined with grey on the first, and downy: some of the feathers round the neck are likewise edged with the same: the under parts of the wings are pale rufous, appearing on the shoulders and edges of them when closed: at the bend of the wing are two strong, sharp, horny, yellow spurs, one above another, the uppermost an inch and a half in length: the belly, thighs, and vent are white: the tail is eight inches and a half long, and black: the legs are stout and dusky: the fore claws are moderately bent; the hind one is nearly straight, not unlike that of a lark, and is about an inch long.—The female, we are told, is very like the male.

It is remarked, that they are always met with in pairs; and if one dies, the other mourns to death for

the loss. They frequent places near the water; make a large nest of mud, in the shape of an oven, upon the ground (A); and lay two eggs, the size of those of a goose. The young are brought up in the nest till able to shift for themselves. They have but one nest in a year, which is in January or February, except the first eggs are taken away, when they make a second in April or May. The young birds are frequently eaten by the natives, though the colour of the flesh is very dark; that of the old ones is tough and ill tasted. By some authors this species is said to feed on crabs and birds, such as pigeons, poultry, and even to attack sheep and goats; but this is denied by others, who say that its principal food is reptiles. In the stomach of one which M. Bajon dissected, there were only found herbs and seeds of plants; however, he adds, that the bird has no gizzard. The cornuta is a rare species. It is found in certain districts in Cayenne, Guiana, Surinam, and other parts of South America, chiefly in the marshes and wet savannas, and for the most part near the sea. These should seem to be the birds mentioned by Ulloa (B), which are called by the inhabitants of Quito *dispertadores*, or "awakeners," from their giving notice to others of the approach of danger; as on hearing the least noise, or seeing any one, though at a great distance, they rise from the ground, and make a loud chattering like a magpie, continuing the noise, and hovering over the object which caused the alarm, whereby the rest of the birds, taking the hint, are able in time to escape the impending danger. This screaming noise, which some authors relate as being exceedingly loud and terrible (C), has occasioned Mr Pennant to give the genus the name annexed to it. In Dr Hunter's museum there is a fine specimen of this bird, brought from Cayenne.

The second species of palamedea is the cristata, or crested screamer. This bird is about the size of an heron: the bill is short, bent like that of a bird of prey, and of a yellowish brown: the irides are gold-coloured: on the forehead, just above the bill, is a tuft of black feathers, variegated with ash-colour: the head, neck, and body, are grey, mixed with rufous and brown, most inclining to the last on the wings and tail: the wings are not furnished with spurs: the legs pretty long, of a dull yellow: claws brown; the hind toe placed high up, so as not to touch the ground in walking.

This bird inhabits Brasil. Linnæus makes it to belong to the screamer genus, perhaps from its cry; for it is said to be heard at a great distance, and is not unlike that of a hen turkey. None of our later writers seem to have seen it, all of them relying on Marcgrave both for description and figure. It is said to feed on the same food as the heron tribe: the flesh is good, and the bird by some kept tame.

PALAMEDES, a Greek chief, son of Nauplius king

(A) Authors differ. Bajon says, that it makes the nest both in thickets, at some distance from the ground, and often among the rushes. Fermin tells us, that it builds on high trees. See *Mem. sur Cay. and Deser. Surin.*

(B) Voy. vol. ii. p. 243.—Ulloa makes their size no bigger than that of a cock. He says, that the head is adorned with a tuft of feathers. Perhaps he may mean the next species.

(C) *Terribili voce clamitans.* Linnæus.

Plate
CCCLXXIV.

Latham's
General Syn-
opsis of
Birds.

Palamedes king of Eubœa, by Clemene. He was sent by the Grecian princes who were going to the Trojan war, in order to bring Ulysses to the camp, who, to avoid the expedition, pretended insanity; and the better to carry on the imposition, he often harnessed different animals to a plough, and sowed salt instead of barley. Palamedes soon discovered the cheat. He knew that regret to part with Penelope, whom Ulysses had lately married, was his only reason for pretending insanity; and to demonstrate this, Palamedes took Telemachus, of whom Penelope had lately been delivered, and put him before his father's plough. Ulysses turned the plough a different way, not to hurt his child. He was therefore obliged to attend the Greek princes to the war; but an immortal enmity took place between Ulysses and Palamedes. The king of Ithaca determined to take every opportunity to distress him; and when all his expectations were frustrated, he was mean enough to bribe one of his servants, and to make him dig a hole in his master's tent, and there conceal a large sum of money. After this Ulysses forged a letter in Phrygian characters, as from Priam to Palamedes. In the letter the Trojan king seemed to beg Palamedes to deliver into his hands the Grecian army, according to the conditions which had been previously agreed upon when he received the money. This forged letter was carried, by means of Ulysses, before the princes of the Grecian army. Palamedes was summoned, and made the most solemn protestations of innocence, but in vain. The money that was discovered in his tent served to corroborate the accusation; and he was therefore found guilty by the whole army, and stoned to death. Homer is silent about the unfortunate fate of Palamedes; and Pausanias mentions, that it had been reported by some that Ulysses and Diomedes had drowned him in the sea as he was fishing on the coast. Philostratus, who mentions the tragical story as above related, adds, that Achilles and Ajax buried his body with great pomp on the sea-shore; and that they raised upon it a small chapel, where sacrifices were regularly offered by the inhabitants of Troas. Palamedes was a man of learning as well as a soldier; and according to some he completed the alphabet of Cadmus by the addition of the four letters θ , ξ , χ , ψ , during the Trojan war. To him also is attributed the invention of dice and backgammon; and it is said that he was the first who regularly ranged an army in a line of battle, and who placed sentinels round the camp, and excited their vigilance and attention by giving them a watchword.

PALARIA, among the Romans, a kind of exercise performed at a stake by the soldiers. The stake being fixed in the ground, and six feet high above it, the young undisciplined soldiers advanced against it, armed with a hurdle and cudgel, instead of a sword and shield, and went through all the rules of attack and defence, as if actually engaged with an adversary. Sometimes they stood at a distance, and attacked with missile weapons; at the same time using all the requisite motions for defending themselves, and warding off what might be thrown against them.

PALATE, in anatomy, the flesh that composes the roof, or the upper and inner part, of the mouth.

The palate has much the same structure with the gums; but it has also a great number of glands, dis-

covered so early as the time of Fallopius: these are principally situated in the hinder part near the uvula, where it is pendulous, in the manner of a curtain, which part is called the *velum*, or *claustrum*, of the palate. The glands situated particularly in this part, secrete a mucous fluid, serving to lubricate the mouth and throat, and to facilitate deglutition: they have a great number of apertures there for the discharge of this humour into the mouth.

The great uses of this membrane are to defend the bones of the palate from corrupting; and for preventing, by its *claustrum* or *velum*, the things to be swallowed from getting up into the nostrils.

PALATINATE, a province or signiory, possessed by a palatine.

PALATINATE of the Rhine, a province of Germany, divided into two parts by the Rhine, called the *Upper* and *Lower Palatinate*. The former lies in the circle of Bavaria, and belongs to the elector thereof; but the latter, in the circle we are now treating, belongs to the elector Palatine. The latter part is bounded to the east by the county of Katzenelnbogen, the archbishopric of Mentz, the bishopric of Worms, and part of the territory of the Teutonic order in Franconia; to the west by Alsace, the duchy of Deuxponts, the county of Sponheim, the duchy of Simmern, and certain districts of the electorate of Mentz; to the south by the duchy of Wurtemberg and the bishopric of Spire; and to the north by a part of the archbishopric of Mentz and the county of Katzenelnbogen. It contains 41 towns, besides several boroughs; and is about 100 miles in length, and 70 in breadth. The air is healthful, and the soil fruitful in corn, pasturage, wine, tobacco, and all sorts of pulse and fruits, particularly walnuts, chefnuts, and almonds. This country also breeds abundance of cattle, and is well watered by the Neckar, the Nahe, and the Rhine. In the last of these, near Germersheim and Selz, is found gold; the exclusive right of searching for which is farmed out by the elector. The state of religion hath varied greatly here since the Reformation, Lutheranism and Calvinism having been uppermost by turns, till the electorate devolved to the Popish branches of the family, when Popery, with all its superstition and mummery, was established anew: so that the Protestant religion is now on a very precarious footing in the Palatinate, though most of the natives are still of that persuasion: but the two sects of Protestants, namely, the Lutherans and Calvinists, have greatly contributed to their own ruin, by their mutual jealousy and animosity, being no less rancorous against one another than against their common adversaries the Papists. The Lutherans reckon themselves 50,000 strong, and are possessed of about 85 churches; but not one half of their preachers and schoolmasters have a competent maintenance. The number of Calvinist clergy here is estimated at 500, and that of the Roman Catholics at 400. Besides schools and Jesuits colleges in this country, there is one university, namely, that of Heidelberg; but there is very little trade in it except in wine. Authors are divided about the origin of the name *Palatines*, or *Pfalzgraves*, as the Germans call them; but it seems most likely to be derived from the *palatia*, or palaces, which the old Frankish and German kings and Roman emperors were possessed of in different parts of the country,

Palatinate. country, and over which they appointed supreme stewards or judges, who were called *Palatines* or *Pfalzgraves*. The countries where these Palatines kept their courts, were, from them, called *Palatinates*; which name came at last to be appropriated, by way of eminence, to this country, as being the most considerable of them. The ancient electoral line failing in 1685, the electorate devolved to Philip-William duke of Neuburg; and upon the death of his second son Charles-Philip, to the prince of Sultzbach. This elector has the title of arch-treasurer of the empire, as well as the elector of Brunswic-Lunenburgh, and is the fifth in rank among the secular electors. He is also one of the vicars of the empire alternately with the elector of Bavaria, and enjoys many other prerogatives. In his own dominions, he disposes of all vacant benefices; but allows the ecclesiastical council, composed of two clergymen and two laymen, to present two candidates, of which he chooses one. He is also master of all the tithes in his dominions; but he either grants them to the clergy, or salaries in lieu of them, out of the revenues of the church. His title is *Pfalzgrave of the Rhine*; arch-treasurer and elector of the holy Roman empire; duke in Bavaria, Juliers, Cleve, and Berg; prince of Mors; marquis of Bergen-op-Zoom; count of Veldens, Sponheim, the Mark, and Ravensberg; and lord of Ravenstein. His quota to the army of the empire is 30 horse and 138 foot, or 914 florins monthly. To the chamber of Wetzlar he contributes, each term, 404 rix dollars, 82 kruit-zers. There is an order of knighthood in this country, viz. that of St Hubert; the badge of which is a quadrangular cross pendant to a red ribbon, with a star on the breast. The whole of the elector's revenue, arising from the Palatinate, the duchies of Berg and Juliers, the seigniory of Ravenstein, and the duchies of Neuburg and Sultzbach, hath been estimated at about 300,000 l. *per annum*. The military establishment consists of several regiments of horse and foot, besides the horse and Swiss life-guards: in time of peace he is said to maintain about 6000 men.—All the different courts and councils, usual in other countries for the different departments of government, are also to be found here.

In general, the Lower Palatinate has suffered more by the preceding wars with France than all the provinces of Germany put together during the space of 30 years; for the French have plundered the country, and demolished some of its first towns more than once. In the modern part of the Universal History, we have the following account of the rise of the Palatinate of the Rhine, under the history of Germany.

“ Though Conrad the son of Everhard inherited from his father the duchy of Franconia, with the counties of Hesse and Alsace, he could not succeed him in the dignity of count-palatine, because Otho had taken it from his father, and conferred it on Herman third son of Arnold duke of Bavaria: but as this honour was unattended with any solid advantage, the emperor began to annex to it the lands and castles situated on the Rhine, whence he acquired the title of Count Palatine of the Rhine: and, in process of time, these counts made great acquisitions by marriages, purchases, mortgages, and imperial donations, so as to form a very considerable province.” The powers of

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counts palatine in the German empire have always been ample; we have this account of it in the same learned work.

“ When the counts palatine of the Rhine began to execute their office, they neither possessed on that river lands, cities, nor castles; but having by degrees made great acquisitions by marriages, purchases, agreements, imperial donations, or otherwise, they have at length formed a very considerable principality. We are told, that under the emperors of the house of Swabia, their authority and power increased greatly, tho' it was a gradual increase. Under the reign of the emperor Henry IV. the credit of the counts palatine was very considerable at the court; and by the German law, the count palatine of the Rhine enjoys not only during the absence of the emperor, but likewise during a vacancy of the empire, the right of the ban beyond the Rhine, till within a mile of the city of Metz, and as far as the ocean, as well as in Flanders. However, this right of the ban has not been granted to him by the emperors. There is likewise an ancient ordonnance, in which the office of count palatine is mentioned; it imports, that the count palatine is always by right the representative or lieutenant of the kingdom. Lastly, how great the power of the counts palatine was, may be understood from this, that in the election of Rodolphus of Hapsburgh, and in that of Henry VII. the other electors promised to acknowledge him as emperor whom he should name. Although, however, the power of the counts palatine had as it were secured to them the vicariate of the empire, nevertheless the emperors still reserved to themselves the right of establishing vicars.” See BAVARIA.

PALATINATES of POLAND. Previous to the Revolution in this unfortunate country, it was divided into palatinates; whether those will be now changed cannot be at present ascertained, tho' it seems likely. A Polish palatine is thus described in the Universal History:

“ A palatine may be regarded as the governor of a province, who levies and leads the troops of his own jurisdiction to join the army of the republic. His civil power is likewise considerable, as he presides at the assemblies of his palatinate, rates the prices of all commodities and merchandise in the province, regulates the weights and measures, and judges and defends the Jews within his jurisdiction. This part of his function is particularly specified, that a set of men the most useful and industrious in Poland may not be oppressed; the king being likewise obliged, by his oath, to afford them the protection of the laws and his sovereignty. Under him is appointed a substitute or vice-palatine, who takes an oath to his superior, and must be possessed of a land-estate to a certain value.”

PALATINE, or COUNT PALATINE, a title anciently given to all persons who had any office or employment in the prince's palace: but afterwards conferred on those delegated by princes to hold courts of justice in the provinces; and on such among the lords as had a palace, that is, a court of justice, in their own houses.

Counties-PALATINE in England.—Chester, Durham, and Lancaster, are called *counties-palatine*. The two former are such by prescription, or immemorial cu-

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from; or, at least as old as the Norman conquest: the latter was created by king Edward III. in favour of Henry Plantagenet, first earl and then duke of Lancaster; whose heiress being married to John of Gaunt the king's son, the franchise was greatly enlarged and confirmed in parliament, to honour John of Gaunt himself, whom, on the death of his father-in-law, the king had also created duke of Lancaster. Counties-palatine are so called *a palatio*; because the owners thereof, the earl of Chester, the bishop of Durham, and the duke of Lancaster, had in those counties *jura regalia*, as fully as the king hath in his palace; *regalem potestatem in omnibus*, as Bracton expresses it. They might pardon treasons, murders, and felonies; they appointed all judges and justices of the peace; all writs and indictments ran in their names, as in other counties in the king's; and all offences were said to be done against their peace, and not, as in other places, *contra pacem domini regis*. And indeed by the ancient law, in all peculiar jurisdictions, offences were said to be done against his peace in whose court they were tried; in a court-leet, *contra pacem domini*; in the court of a corporation, *contra pacem ballivorum*; in the sheriff's court or tourn, *contra pacem vicecomitis*. These palatine privileges (so similar to the regal independent jurisdictions usurped by the great barons on the continent during the weak and infant state of the first feudal kingdoms in Europe) were in all probability originally granted to the counties of Chester and Durham, because they bordered upon enemies countries, Wales and Scotland: in order that the owners, being encouraged by so large an authority, might be the more watchful in its defence; and that the inhabitants, having justice administered at home, might not be obliged to go out of the county, and leave it open to the enemy's incursions. And upon this account also there were formerly two other counties palatine, Pembrokeshire and Hexamshire, the latter now united with Northumberland: but these were abolished by parliament, the former in 27 Hen. VIII. the latter in 14 Eliz. And in 27 Hen. VIII. likewise, the powers before mentioned of owners of counties-palatine were abridged; the reason for their continuance in a manner ceasing: though still all writs are witnessed in their names, and all forfeitures for treason by the common law accrue to them.

Of these three, the county of Durham is now the only one remaining in the hands of a subject. For the earldom of Chester, as Camden testifies, was united to the crown by Hen. III. and has ever since given title to the king's eldest son. And the county-palatine or duchy of Lancaster was the property of Henry of Bolingbroke, the son of John of Gaunt, at the time when he wrested the crown from king Richard II. and assumed the title of Hen. IV. But he was too prudent to suffer this to be united to the crown; lest, if he lost one, he should lose the other also. For, as Plowden and Sir Edward Coke observe, "he knew he had the duchy of Lancaster by sure and indefeasible title, but that his title to the crown was not so assured: for that after the decease of Richard II. the right of the crown was in the heir of Lionel duke of Clarence, second son of Edward III.; John of Gaunt, father to this Henry IV. being but the fourth son." And therefore he procured an act

of parliament, in the first year of his reign, ordaining that the duchy of Lancaster, and all other his hereditary estates, with all their royalties and franchises, should remain to him and his heirs for ever; and should remain, descend, be administered, and governed, in like manner as if he never had attained the regal dignity: and thus they descended to his son and grandson, Henry V. and Henry VI.; many new territories and privileges being annexed to the duchy by the former. Henry VI. being attainted in 1 Edward IV. this duchy was declared in parliament to have become forfeited to the crown, and at the same time an act was made to incorporate the duchy of Lancaster, to continue the county-palatine (which might otherwise have determined by the attainder), and to make the same parcel of the duchy: and, farther, to vest the whole in king Edward IV. and his heirs, kings of England, for ever; but under a separate guiding and governance from the other inheritances of the crown. And in 1 Hen. VII. another act was made, to resume such part of the duchy lands as had been dismembered from it in the reign of Edward IV. and to vest the inheritance of the whole in the king and his heirs for ever, as amply and largely, and in like manner, form, and condition, separate from the crown of England and possession of the same, as the three Henries and Edward IV. or any of them, had and held the same.

The isle of Ely is not a county-palatine, though sometimes erroneously called so, but only a royal franchise: the bishop having, by grant of king Henry I. *jura regalia* within the isle of Ely; whereby he exercises a jurisdiction over all causes, as well criminal as civil.

PALATINE Games, in Roman antiquity, games instituted in honour of Augustus by his wife Livia, after he had been enrolled among the gods. They were celebrated in the palace, from whence the name, and were confirmed by the succeeding emperors.

Some authors say that these games were instituted in honour of Julius Cæsar, and others again confound them with the *Ludi Augustales*; but neither of these opinions seem to be well supported. See *AUGUSTALES*.

PALATINUS MONS, or *Palatium*, the first mountain of Rome, occupied by Romulus, and where he fixed his residence and kept his court, as did Tullus Hostilius, Augustus, and all the succeeding emperors: and hence it is that the residence of princes is called *palatium*. The reason of the name is variously assigned: some say it is derived from the goddess Pales, or from the Palatini, who originally inhabited the place, or from *balare* or *palare*, the bleatings of sheep, which were frequent there; or perhaps from the word *palantes*, wandering, because Evander, when he came to settle in Italy, gathered all the inhabitants, and made them all one society. To the east it has the mount Cælius, to the south the Aventine, to the west the Capitoline, and to the north the Forum.—*Palatinus*, the surname of Apollo from this place; where Augustus built a temple to that god, adorned with porticoes and a library, valuable for the various collections of Greek and Latin manuscripts which it contained.

PALATIUM (anc. geog.), a place in the territory of Reate, distant from it 25 stadia. Dionysius Halicarnassensis

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Palatium.

Palatium carnassens reckons it one of the first towns of the Aborigines; and from it Varro accounts for the name of the *Mons Palatinus*; namely, that a colony from *Palatium* settled there.

PALATIUM (Pliny), *Pallantium* (Pausanias), *Palanteum* (Livy); *Pallanteum* (Solinus). This last is the true writing; the great grandfather of Evander, from whom it took its name, being called *Pallas*, not *Palas*: A town of Arcadia, which concurred to form Megalopolis (Pausanias). From it the *Palatium*, or *Mons Palatinus*, takes also its name, according to Virgil and Pliny.

PALATIUM Dioclesiani; the villa of Dioclesian, near Salonæ, where he died, (Eusebius). Afterwards called *Spalatum*; which rose to a considerable city from the ruins of Salonæ; situated in Dalmatia on the Adriatic. Now *Spalatto*, or *Spalatro*.

PALATIUM Luculli, (Plutarch), or *Villa Luculli*; a place between Misenum and Baiæ in Campania, of wonderful structure. Now in ruins, and called *Piscina Mirabile*.

PALATO-SALPINGÆUS, } See ANATOMY, Table
PALATO-Staphylinus, } of the Muscles, p. 708.

PALE, a little pointed stake or piece of wood used in making inclosures, separations, &c. The *pale* was an instrument of punishment and execution among the ancient Romans, and still continues so among the Turks. Hence empaling, the passing a sharp pale up the fundament through the body.

PALE, in heraldry. See HERALDRY, p. 446.

PALEARIUS (Aonius), was a man of the greatest probity, and one of the best writers of the 16th century. He gained the esteem of the men of wit and learning of his time by a noble poem on the immortality of the soul. He was appointed professor of polite literature at Sienna; where his tranquillity was disturbed by contests with an envious colleague, and by the malicious aspersions of his enemies; against which, however, his eloquence proved always a sufficient defence. At last he left Sienna, and accepted the invitation of the magistrates of Lucca, who gave him several marks of their esteem, and settled a considerable stipend upon him. Some years after, he removed to Milan; where he was seized by order of pope Pius V. and carried to Rome. He was convicted of having spoken in favour of the Lutherans, and against the inquisition; and therefore was condemned to be burnt. This sentence was executed in 1566. He wrote several pieces in verse and prose; of which the one above-mentioned is the most esteemed.

PALENCIA, a town of Spain, in the kingdom of Leon, with a rich archbishop's see. It had an university, but it was removed to Salamanca. It is seated in a fertile soil on the river Carion on the frontiers of Castile, in W. Long. 3. 7. N. Lat. 42. 10.

PALERMO, a city of Sicily, in the Val-di-Mazara, with an archbishop's see and a large harbour. "This city (says Mr Hill*), which is the capital of Sicily, is of great antiquity; and if a conjecture may be formed from its ancient name *Panormus*, which signifies an universal harbour, it was formerly in a very flourishing condition. By whom it was founded is uncertain, nor have we any authentic accounts of its inhabitants till it became a colony of the Phœnicians, after which it passed into the hands of the various nations

that became masters of this island. The present city *Palermo*, principally consists of two wide, uniform, and well-built streets, each about a mile in length, crossing each other at right angles in the centre, where there is a small octagon space, ornamented with four statues." Most of the cities of Sicily have surnames: *Palermo* is denominated *the happy*. It has gained this epithet, no doubt, on account of the advantages of its situation. It has two harbours: in the one, which is very large, and in which there is a mole 1300 paces in length, ships lie at anchor; in the other their cargoes are laden and unladen. Both the harbours open to the west: there is also a superb quay which extends a mile from west to east, in a rectilinear direction, and is called *La marine*. The prospect is, on the one side, lost in the wide expanse of the ocean, and on the other confined by the walls of the city; the walls appear adorned with pilasters, and crowned with a row of ballustrades through which the eye discovers a long range of palaces. These objects altogether form a delightful spectacle. Indeed nothing can be more picturesque than the bay of *Palermo*. It forms a large amphitheatre, with the capital of Sicily in the centre; surrounded for some miles by a most delightful country, and inclosed by romantic rocks and mountains. The town was formerly surrounded by a strong wall; but the fortifications are now entirely neglected, except towards the sea, where there are still a few weak works. The quay is the principal public walk here. *Palermo* is embellished all round with avenues of trees, and has four principal entrances, facing the four cardinal points, which are at the extremities of the two spacious streets which cross each other. The most frequented of these two streets is called *Cassero*. It begins where the quay ends, with the north gate called *Porta Felice*, the happy gate; and terminates on the south, at the new gate, which opens on the road to Montreale. Near the last of these gates, this city, which so well merits the attention of a lover of the arts, exhibits a large square, round which stand some extensive monasteries, the palace of the archbishop, and the palace of the viceroy. Directly opposite to the palace of the viceroy stands, on a pedestal richly ornamented with a variety of figures, a statue of Philip IV. The statue, the pedestal, and the ornaments, are all of marble.

Palermo is quite filled with public monuments, churches, monasteries, palaces, fountains, statues, and columns. These are not all eminently beautiful; for they have not been all erected under the reign of good taste; but every one of them shows that the nation is fond of the arts, and possesses a genius for decoration. Spring waters are very copious in this city. Not a quarter in *Palermo* but is liberally supplied with fountains, most of which are marble, all of them adorned with pieces of sculpture, and all afford large quantities of water.

The situation of this city is truly happy; the sea, the hills, the lofty mountains, present on all sides beautiful and striking prospects, which render it one of the most favourable situations for the genius of the artist, whose object is to copy the beauty and sublimity of nature. Freed from the fetters of the Inquisition, the abolition of which was procured by the marquis of Caraccioli, and from the influence of some

* Travels through Sicily and Calabria.

Palermo.

other unfavourable institutions, which are rapidly declining, Palermo must become one of the finest cities in the world; and the island of which it is the capital, being all cultivated like a garden, one of the most enchanting spots on the face of the earth. Nature has denied none of her best gifts to Sicily. It was the benignity of nature, which, in the happy ages of antiquity, when the political circumstances of the Sicilians were not such as to repress their genius, prompted and enabled them to erect so many illustrious monuments. "Adjoining to the town, and near the sea, is a public garden or promenade, planted with orange and lemon-trees, formed into arcades, and now loaded with fruit*; the stems of the trees stand in furrows, and are continually watered by a small stream. In the middle is a fountain, on which stands a colossus of white marble, surrounded by four grotesque temples, in two of which are canary-birds. Among the oranges is a kind called *sanguinei* or bloody, which are stained in the middle with red, and have usually the finest flavour. Some of the lemons are sweet, but very flat, tasting like sugar and water. The citrons grow to an immense size; the rind, which occupies at least three-fourths of the bulk of the fruit, is eaten with sugar; the juice is sharper than the sourest lemon. Indian figs in very great abundance grow wild in the fields and hedges, to the height of twelve or fourteen feet; of these there are three kinds, one with large spines, another with smaller, and the third almost smooth. Their fruit is cooling and delicious, 10,000 l. worth of which is sold annually to the poor people in the neighbourhood of this city. Another plant, very common in this country, is the aloe, which usually blossoms every fifth or sixth year. Of these there are five or six species, which grow mostly in the hedges, and, together with the Indian figs, form a most impenetrable fence.

"The palace, which is an indifferent old building, is situated in a square, near the south gate of the city, and commands a delightful prospect of the adjacent country. At the top is an observatory, inhabited by an ingenious old priest, who has been in England, and brought from thence several astronomical instruments constructed by Ramsden." Neither the structure, situation, nor architectural ornaments of the palace are such as to merit any extraordinary praise. It is, like many others, an assemblage of buildings erected in various ages, as need of accommodation or fancy suggested; and, of consequence, it must unavoidably be defective in architectural order and beauty. The chapel is the only part of it that merits any attention. It was founded by the Counts Roger, the Norman conquerors of Sicily. Within, it is decorated with beautiful pieces of marble and porphyry, and of Mosaic work in gold and various colours. It is in the same taste with the cathedral of Montreale. It is built on the same plan with common churches, only on a smaller scale. The nave is encircled with pillars; on the right and the left are two narrower openings, called *lateral* or low passages: the choir and sanctuary are at the end of the nave. Among all the pillars which inclose the nave, it would be hard to find two exactly of the same form and workmanship. Opposite to a channelled column stands another on which the graving tool has made no such impressions; several have neither astragal, nor base, nor scale: they are formed of various kinds of marble,

and are of different orders and unequal in height. The walls, the arcades, and the arches, are covered with Mosaic work, in gold and colours, representing angels, and male and female saints. Palermo.

Over the entrance into the choir, and fronting the nave, there is an Eternal Father of a huge size; the design of which has, in all probability, been to impress the beholder with a sufficiently awful idea of the greatness of God. Such representations of the Deity, however improper, not to say impious, occur pretty commonly in the churches of Sicily. The cathedrals of both Montreale and Palermo display the Divine Majesty with equal dignity. Over the walls of the chapel there are many pieces of granite, porphyry, and serpentine, cut into a round, or a square, or some other form, and set like panes of glass. Their edges are encircled with various draughts in gold and colours; decorations unquestionably expensive, as they are indeed very finely executed in their kind. But it is amazing that such irregularity of design was admitted in a building of such magnificence and raised at such an enormous expence. The pavement of the chapel has been originally laid, and still consists in part of large blocks of tin, porphyry, and serpentine. Most of these are round; ornamented with compartments of draughts, and covered over, as well as the walls, with incrustations of coloured Mosaic work. The seat designed for the viceroy is of the same kind, and highly ornamented. The candlestick intended to receive the wax-lights at the festival of Easter is of white marble. All the riches of sculpture are lavished on it with such profusion as renders it a prodigy of labour; but in a fantastic unnatural taste.

In a long gallery in the palace of the viceroy, stand two figures of rams in bronze, concerning which we find the following tradition.—Archimedes is said to have long ago erected in one of the public squares of Syracuse four columns with a brazen ram upon the top of each. He is said to have placed them there in such a posture, as that some one of them always indicated which of the four principal winds was blowing; and it is added, that they were fabricated with such art, that the wind caused them to utter sounds exactly similar to the bleating of sheep; and whenever any one of the four bleated, he thereby gave notice that the wind was blowing from that quarter towards which he stood. It is certain (as travellers inform us) that the two brazen rams in this gallery are perforated with small holes in their flanks, close to their thighs, and in other places over their bodies; and that by blowing through those holes a sound is produced pretty much like the bleating of sheep. The wind appears to pass through the holes, and to issue out at the mouth: there might, however, be other holes in the pedestal on which the ram stood, or in other parts of the body, which might contribute to produce the bleating; for travellers agree in saying, that those which they could observe, do not appear to be sufficient to produce the effect. The prince of Torre Muzza, one of the most enlightened men in Sicily, informed M. Houel, that these two rams were dug up from among the ruins of Syracuse in the fourteenth century: as they were buried under-ground, they had probably lain there for many centuries. They were bought by the Marquis Geraci, of the family of Ventimiglia, and lay long in his

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Palermo. his castle. About the end of the fifteenth century they were brought to Palermo, and placed in the palace of the viceroy. It is not known what is become of the other two. They are probably buried in some ancient ruins, and may be one day or other discovered in digging for the foundation of some new building. The proportions of these two rams are larger than nature. They are pieces of very fine workmanship: both the heads and the horns are formed with taste, delicacy, and truth; the wool is not so well executed; the forms all together are not absolutely the finest that might be selected from among the whole species.

The cathedral of Palermo is dedicated to St Rosalia. The Sicilians, though so exceedingly devout, have however neglected to repair it; and it is at present in a most miserable state, as the interior parts appear to be falling into ruins. Proposals have been made for rebuilding it, and various plans have been shown.

The present church appears to have been built by the Counts Roger. The external parts are in a Gothic taste, and very heavy: within, it has been at different periods repaired and embellished. The pillars of the nave are adorned with pilasters of the Corinthian order: these are joined by arches through which you pass to the sides of the building. In some places it is overloaded with ornaments, in others but very poorly ornamented: viewed all together, it is so destitute of order or proportion as to be absolutely ridiculous.

In a chapel on one side of the cathedral are four Gothic tombs of the same period. They have been originally sarcophagi; and having escaped the fate of most of the other works of antiquity, have been spoiled by attempts to repair or improve them, and have been set up here to preserve the remains of some of the kings of Sicily. The only thing about them that can deserve attention is the beauty of the stone: they are of a fine red porphyry.

In the same chapel there is a fine large tabernacle; the whole of which, when viewed without distinction of the parts, resembles the dome and the front-gate of the Val-de-grace at Paris. It is of rich lapis lazuli, of the very first colour. The whole of it is plated, and the pillars are said to be solid. All its ornaments are of gilt brass. And on the whole it is extremely beautiful.

Around the church are several statues of saints by Guagini, the celebrated sculptor. On the way from the cathedral down the Cassero there is, on the right hand, a small square, at the entrance of which stands a pedestrian statue of Charles V. in bronze. Near the place where the two great streets cross stands the senate-house, in a small court before which there is a fine marble fountain; there are besides about this edifice many curious fragments of antiquity. It would extend this article beyond all proportion if we were to mention all the curiosities which are to be found in Palermo. We shall now endeavour to give our readers an idea of the internal government of the place, which we shall do in the words of Mr Hill.

"The magistrates appointed to preserve the order of society in this city are, first, the supreme judge, to whom belongs the administration of justice in criminal cases; he is the head of the nobility, and immediately

follows the viceroy in all the solemn functions. Secondly, the prætor, who regulates the affairs of the city. He is the perpetual deputy of the kingdom; chief in parliament of the order to whom appertains the right of regulating the king's demesne, and possessed of the prerogative of captain-general during the absence of the viceroy. Thirdly, the prætorian court, which consists of three judges, citizens of Palermo, who are chosen annually by the king. They assist the supreme judge in the decision of criminal affairs, and the prætor in the deliberations upon the finances; these two officers, however, have neither vote nor signature, except the prætor, in the business respecting the public bank and first fruits. Fourthly, the senate of Palermo, composed of the prætor and six practitioners of the law, named by the king, who wear the toga after the manner of the ancient Roman senators, and principally inspect the police which regards the grain and provisions. There are besides seven great officers of state, to each of which is assigned a peculiar employment. First, *Il Maestro Portelano*, to whom is committed the care of the public granaries, and who manages the sale of the corn both at home and abroad. The imposition of a tax upon this commodity has nearly proved the ruin of agriculture, especially as the exportation of it is prohibited to all those who are not able to pay an exorbitant price for that privilege. The quantity of corn annually produced in the island does not at present amount to more than a tenth part of what was collected in former years. Secondly, the auditor-general, who passes judgment without appeal upon all offences committed within the precincts of the palace. Thirdly, the high-admiral, whose jurisdiction extends over the marine. Fourthly, the chancellor, who overlooks all the notaries of the kingdom, prepares all official patents, reads the propositions when the parliament assembles, and at the time of a coronation tenders the oath of fidelity to the people, and also proclaims that of the monarch, who thereby binds himself to maintain and defend the privileges of the city of Palermo. The same ceremony takes place upon the installation of a viceroy. Fifthly, the prothonotary of the queen's chamber, who has the inspection of the demesnes of six cities, *viz.* Syracuse, Lentini, Carlentini, St Filippo, Mineo, and Virini, which were formerly appropriated to the queens of Sicily. Sixthly, the chief secretary, who presides over the officers appointed to receive the taxes and duties in the places of their respective jurisdictions. And, seventhly, the lieutenant of the royal exchequer, who has the administration of all effects that have been sequestered or confiscated.

"Palermo is the principal residence of the greater part of the Sicilian nobility; and as it is not the custom for any gentleman to walk in the streets, at least 1000 carriages are said to be kept in the town. They are for the most part in the English taste, very elegant, shown to the greatest advantage, with beautiful horses richly caparisoned, and as many footmen in splendid liveries as can be crowded together behind. Every evening all the people of rank drive about in this manner on the grand public terrace by the sea-side. There are also very convenient hackney-coaches, covered and open, waiting all day in their respective stations."

Palermo.

It is very remarkable, that the dead in Palermo are never buried. Captain Sutherland gives the following account of this circumstance in his Tour to Constantinople. The dead bodies are carried to the capuchin convent, which is one of the largest in Italy; "where, after the funeral service is performed, they are dried in a stove, heated by a composition of lime, which makes the skin adhere to the bones. They are then placed erect in niches, and fastened to the wall by the back or neck. A piece of coarse drab is thrown over the shoulders and round the waste; and their hands are tied together, holding a piece of paper with their epitaph, which is simply their names, age, and when they died. We of course (says Captain Sutherland) visited this famous repository; and it is natural to suppose, that so many corpses would impress one with reverence and awe. It was nearly dusk when we arrived at the convent. We passed the chapel, where one of the order had just finished saying vespers, by the gloomy glimmering of a dying lamp. We were then conducted through a garden, where the yew, the cypress, and the barren orange, obscured the remaining light; and where melancholy silence is only disturbed by the hollow murmuring of a feeble water-fall. All these circumstances tuned our minds for the dismal scene which we were going to behold; but we had still to descend a flight of steps impervious to the sun; and these, at last, conveyed us to the dreary mansion of the dead. But (will you believe me?) notwithstanding the chilling scene through which we had passed, notwithstanding our being in the midst of more than a thousand lifeless bodies, neither our respect for the dead, nor for the holy fathers who conducted us, could prevent our smiling. The physiognomies of the deceased are so ludicrously mutilated, and their muscles are so contracted and distorted in the drying, that no French mimic could equal their grimaces. Most of the corpses have lost the lower part of the nose; their necks are generally a little twisted; their mouths drawn awry in one direction, their noses in another; their eyes sunk and pointed different ways; one ear perhaps turned up, the other drawn down. The friars soon observed the mirth which these unexpected visages occasioned; and one of them, as a kind of *memento*, pointed out to me a captain of cavalry, who had just been cut off in the pride of his youth: but three months ago, he was the minion of a king—the favourite of a princess—Alas! how changed! Even on earth there is no distinction between him and the meanest beggar. This idea in a moment restored my reflection; and I felt with full force the folly of human vanity. I turned to the holy father, who gave me this lesson. His eyes were fixed on what was once a captain of horse—I saw in them, 'Read this, titled pomp, and shrink to thy original nothingness. Hie thee to my lady's chamber, tell her, though she paint an inch thick, to this must she come at last—make her laugh at that.' The relations of the deceased are bound to send two wax tapers every year for the use of the convent; in default of which, the corpse is taken down and thrown into the charnel house. Were it not for the number of vacancies occasioned by the nonpayment of this stipend, the capuchins would be unable to find niches for the number of men who must die every year in so populous a city as this. Women are dried as well as

the men, but are not exposed. Nobles are shut up in chests."

Pales,
Palestine.

The number of the inhabitants is above 200,000; and the harbour, though very large, is not so commodious as might be expected, and the vessels that ride therein are not always very safe. There is a magnificent castle built near the sea-side, wherein the viceroy resides six months in the year; and his presence draws a great number of nobility to this place. This city has suffered greatly by earthquakes, particularly in 1693; and it was greatly damaged by a fire in 1730, when a magazine of powder was blown up, containing 400 tons. It stands in a pleasant fruitful country on the north-east coast of the island, and at the bottom of the gulph of the same name. E. Long. 13. 23. N. Lat. 38. 15.

PALES, in Pagan worship, the goddesses of the shepherds; to whom they offered milk and honey, in order that she might deliver them and their flocks from wild beasts and infectious diseases. This goddess is represented as an old woman. She was worshipped with great solemnity at Rome; and her festivals, called *Parilia*, were celebrated on the 21st of April, the very day that Romulus began to lay the foundation of the city of Rome. The ceremony of which consisted in burning heaps of straw, and in leaping over them. No sacrifices were offered, but purifications were made with the smoke of horses blood, and with the ashes of a calf that had been taken from the belly of its mother after it had been sacrificed, and with the ashes of beans. The purification of the flocks was also made with the smoke of sulphur, of the olive, the pine, the laurel, and the rosemary. Offerings of mild cheese, boiled wine, and cakes of millet, were afterwards made to the goddesses. Some call this festival *Parilia*, *quasi a pariendo*, because the sacrifices were offered to the divinity for the fecundity of the flocks.

PALESTINE, in its present state, is a part of Asiatic Turkey, situated between 31° 30' and 33° 20' north latitude, and between 34° 50' and 37° 15' east longitude. It is bounded by Mount Libanus, which divides it from Syria, on the north; by Mount Hermon, which separates it from Arabia Deserta, on the east; by the mountains of Seir and the deserts of Arabia Petraea, on the south; and by the Mediterranean sea on the west.

This once fertile and happy spot was first called the land of *Canaan*, or *Chanaan*, from Noah's grandson. In Scripture, however, it is frequently distinguished by other names; such as the *Land of Promise*, the *Land of God*, the *Land of Israel*, &c. It received the name of *Palestine* from the *Palestines* or *Philistines*, who possessed a great part of it; and it had the name of *Judaea*, or *Judaea-Palestina*, from *Judab*, the most considerable of the twelve sons of Jacob. The Christians have denominated it the *Holy Land*; partly on account of the many singular blessings it received from the Divine Providence, and partly on account of its metropolis being made the centre of God's worship and his peculiar habitation; but much more for its being the place of our Saviour's birth, the scene of his preaching and manifold miracles; especially the place in which he accomplished the great work of our redemption. As to the name of *Judaea*, it did not begin to receive that till after the return of the Jews from the Babylonian

Palestine. nish captivity, though it had been styled long before the *Kingdom of Judah*, in opposition to that of *Israel*, which revolted from it under Jeroboam, in the reign of Rehoboam the son of Solomon. But after the return, the tribe of Judah, the only one that made any figure, settling at Jerusalem, and in the countries adjacent, quickly gave its name to the whole territory. By profane authors it was called by many different names; such as Syria, *Palestina Syria*, *Cælesyria*, Iduma, Idumæa, and Phœnicia or Phœnice; but these are supposed only to have been given out of contempt to the Jewish nation, whom they looked upon as unworthy of any other name than what distinguished the most obscure parts of the neighbouring provinces.

That part of the country which was properly called the *Land of Promise*, was inclosed on the west by the Mediterranean; on the east by the lake Asphaltites, the Jordan, and the sea of Tiberias or of Galilee, and the Samachonite lake; to the north it had the mountains of Libanus, or rather of Antilibanus, or the province of Phœnicia; and to the south, that of Edom or Idumæa, from which it was likewise parted by another ridge of high mountains. The boundaries of the other part, which belonged to the two tribes and an half beyond the river Jordan, are not so easily defined, as well as those of the conquests made by the more prosperous kings of the Jews. All that can be said with any probability is, that the river Arnon was the first northern boundary on that side; and with respect to those on this side the Jordan, there is a considerable disagreement between the Hebrew and Samaritan versions of the Pentateuch.

The extent of this country is likewise variously settled by geographers; some giving it no more than 170 or 180 miles from north to south, and 140 in breadth where broadest, though not much above half that breadth where narrowest. But from the latest and most accurate maps, it appears to extend near 200 miles in length, and about 80 in breadth about the middle, and about 10 or 15, more or less, where it widens or shrinks.

The climate is certainly very happy, its situation being neither too far south nor too far north. The longest day is not above 14 hours 15 minutes: But the limits of Palestine appear so small, considering that the country is likewise intersected by high ridges or mountains, woods, deserts, &c. that many learned men have been induced to question what we read of its fertility and populousness in former times. It must be owned, indeed, that when we compare its ancient and flourishing state, when it was cultivated with the utmost diligence by persons well skilled in every branch of agriculture, with what it hath been since the total extirpation of the Jews out of it, and more especially since it fell into the hands of the Turks, the contrast is amazingly great: but when we consider the many evident causes which have contributed to effect this change, and even yet consider the nature of the country itself, we find not the least reason to doubt the truth of what the sacred historians have related. Moses describes the richness of it in the strongest terms, even before the Israelites got possession of it. It even exceeded the land of Egypt, so much celebrated by ancient historians; especially in the vast numbers of cattle which it produced; in the quantity and excellence of its wine, oil, and

fruits. With respect to the oil and fruits, it is plain, *Palestine.* that the olives and oil of Canaan exceeded in goodness those of Egypt, since the tribes sent them thither from thence; and as for vines, Herodotus tells us, that the Egyptians had none at all, but supplied the want of them by a liquor brewed from barley. The presents which Jacob sent to his son Joseph, of honey, spices, myrrh, almonds, and other fruits of Palestine, show that they must have been much better in the land of Judea than in Egypt. The wines of Gaza, Ascalon, and Sarepta, were famous among the most remote nations; though it is allowed, that the wine which was made at and in the neighbourhood of Bethlehem, in great quantities, was equal at least, if not superior, to any of the rest: and that of Libanus, mentioned by the prophet Hosea, was no less celebrated for its excellent flavour.

Several circumstances contributed to this wonderful fecundity: such as, the excellent temperature of the air, which was never subject to excessive heats or colds; the regularity of its seasons, especially the former and latter rain; and the natural fatness and fertility of its soil, which required neither dunging nor manuring, and could be ploughed with a single yoke of oxen and a small kind of plough; for the soil was, and is still, so shallow, that to have gone deep into it, would rather have endangered than improved the crop. With respect to the excellency of its corn, we are told, that the bread of Jerusalem was preferred above all other; and the tribe of Asher produced the best of both, and in greater quantity than any other tribe; and such plenty was there of it, that, besides what sufficed the inhabitants, who made it their chief sustenance, Solomon, we read, could afford to send 20,000 cors, or measures, of it, and as many of oil, yearly, to Hiram king of Tyre; besides what they exported into other countries. And we find, even so late as King Herod, surnamed Agrippa, the countries of Tyre and Sidon received most of their sustenance from his tetrarchy.

As to their fruits, the grapes were delicious, finely flavoured, and very large. The palm-tree and its dates were in no less request; and the plain of Jericho, among other places, was famed for the great plenty and excellence of that fruit; insomuch, that the metropolis of that territory was emphatically styled *the city of palm-trees*. But what both this plain, and other parts of Palestine, were most celebrated for, was the balsam shrub, whose balm was esteemed so precious a drug among the Greeks, Romans, Egyptians, and other nations, and is still to this day under the name of *balm of Gilead*. They had likewise the greatest variety of other fruit-trees in the highest perfection; and which might be, in some sense, styled *perpetual*, because they were not only covered with a constant verdure, but because the new buds always appeared on the same boughs before the old fruit was ripe; and of those buds, which were in too great quantities to be allowed to come to maturity, they gathered enough to make very delightful pickles and sweetmeats, especially of their citrons, oranges, and apples of paradise, which last commonly hung by hundreds in a cluster, and as big as hens eggs, and of an excellent taste and flavour. Their vines yielded grapes twice, and sometimes three times, a year, great quantities of which were dried up, and preserved for use, as well

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well as their figs, plums, and other fruits. They had plenty of honey; the very trees distilled it; and the rocks yielded it in great quantities: but whether that of the latter kind was there deposited by the industrious bees, or produced some other way, is much disputed by travellers and naturalists. They likewise cultivated sugar-canes in great abundance; and the cotton, hemp, and flax, were mostly of their own growth and manufacture, except some of a finer sort, that were brought to them from Egypt, and worn by those of the higher rank. Their vicinity to Libanus made the cedars, cypresses, and other stately fragrant trees, very common in most parts of the land, but more especially in Jerusalem. Cattle, both large and small, they fed in vast quantities; and the hilly countries not only afforded them variety and plenty of pasture, but also of water, which descended thence into the valleys and lowlands, and fertilized them to the degree we have seen; besides several other rivers and brooks, some of the most remarkable of which we shall speak of in their proper places. But the most fertile pasture grounds were those on each side the river Jordan; besides those of Sharon, or Sarona, the plains of Lydda, Jamnia, and some others then justly famed for their fecundity. As for fish, the rivers above-mentioned, the lake of Tiberias, and the Mediterranean sea, afforded, as they do to this day, great plenty and variety. Vast quantities were brought to Jerusalem, on which the inhabitants mostly subsisted; and hence one of the gates of that metropolis was, according to St Jerome, called the *fish-gate*. The lake Asphaltites yielded salt in abundance, wherewith to season and preserve their fish, which Galen affirms to have been preferable to any other for wholesomeness, digestion, and extenuation. In short, the Scripture is so pregnant with proofs of the extraordinary richness and fecundity of this once happy land, and the vast number of people that lived in it, almost wholly upon its product, to say nothing of the vast exports of its corn, wine, oil, raisins, and other fruits, &c. that a man must have taken a strange warp to infidelity, that can call it in question, merely on account of the melancholy and quite opposite figure it now makes under its present tyrannical government.

But its fertility has been called in question; and Voltaire and other infidel writers have raised difficulties and objections against the authority of Scripture, from the pretended sterility of the land of Judea. In answer to which, the Abbé Guenée, about the year 1780, communicated to the academy of inscriptions and belles lettres at Paris, *Two Memoirs concerning the Fertility of Palestine*, in order to show that such objections had no solid foundation.

In the first of them, the author proves, that from the captivity of Babylon to the war of Adrian, Judea was always considered as a rich and fertile country. The positive and multiplied authorities of the writers of that period, Jews, Greeks, and Romans, not only attest in general the fertility of that country, but many of these writers, entering into a particular detail of circumstances, prove it from the nature of the climate, the qualities of the soil, and the excellencies and variety of its productions. These are confirmed by proofs of another kind, but which are of a very

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convincing nature, even those resulting from a great number of medals struck under the reigns of the kings of Syria and Judea, and under the Romans, both by Jews and Pagans, and which all bear the symbols of a rich fertility. To these proofs are added a multitude of facts, recorded in the history of the Jews during this period; the efforts of the neighbouring kings to conquer their country; the long and bloody wars that the Jews carried on with vigour, and sometimes with success, against powerful princes and nations; the tribute and taxes they paid to the kings of Egypt and Syria, to the Romans, and to their own princes; the magnificence of their sovereigns, and among others of Herod; the troops he raised and kept on foot; the temples, fortresses, palaces, and cities, which he erected and embellished, not only in his own country, but also in Syria, Asia Minor, and even in Greece; the immense sums he lavished among the Romans, the donations he made to his own people, and the vast treasures which he left behind him: all these circumstances concur in proving the fertility and riches of Palestine during that period.

In the second memoir, the Abbé Guenée considers the state of Palestine as it was from the time of the Emperor Adrian to the caliphate of Omar, which comprehends a period of four centuries. From sundry facts he shows, that it could not then have been the barren country which it has been represented by some sceptical writers. He particularly mentions the project formed by Adrian of rebuilding and embellishing Jerusalem, of forming it into a Roman colony, and giving it his own name; a project of which he could never have entertained a thought, if Judea, which he had seen and examined with his own eyes, had appeared to him such a barren and wretched country, as it is said to be by some who have neither seen that country nor examined the matter with care and attention. Our author also produces a variety of other facts, to show that Judea, after all that it had suffered from the desolations of war both in ancient and later times, still remained at the period in question fertile, rich, and populous. This is the idea which the writers of the time, Pagan and Christian, as well as Jewish, have given of Palestine. Antoninus Martyr, a citizen of Placentia, who in the 6th century travelled to Palestine, and composed an account of his voyage, which is still extant, says, that the canton of Nazareth was not inferior to Egypt in corn and fruits; and that though the territory of that city was not very extensive, it abounded in wine and oil, and excellent honey. The country about Jericho appeared to him still more fertile. He saw mount Tabor, which he represents as surrounded with cities: and he observed, in the neighbourhood of Jerusalem, vineyards, great plantations of fruit trees, and through the whole country a considerable number of hospitals, monasteries, and beautiful edifices. Our learned Abbé, in concluding his work, acknowledges, that the opulence and fertility of Judea might begin to diminish towards the middle of the period treated of in his second memoir: but he does not think that any argument can be drawn from hence against its having been at the commencement of this period in a flourishing state; and much less can any proof be brought from hence, that in preceding periods,

Palestine. riods, under the kings, or under the administration of Moses, the country of Palestine was a barren and uncultivated district.

Besides, it ought to be considered, that it was then inhabited by an industrious people, who knew how to improve every inch of their land, and had made even the most desert and barren places to yield some kind of productions, by proper care and manure: so that the very rocks, which now appear quite bare and naked, were made to produce corn, pulse, or pasture; being, by the industry of the old inhabitants, covered with mould, which, through the laziness of the succeeding proprietors, has been since washed off with rains and storms. We may add, that the kings themselves were not above encouraging all kind of agriculture, both by precept and example; and, above all, that they had the divine blessing promised to their honest endeavours and industry: whereas it is now, and hath been long since, inhabited by a poor, lazy, indolent people, groaning under an intolerable servitude and all manner of discouragements; by which their aversion to labour and agriculture, farther than what barely serves to supply their present wants, is become in a manner natural and invincible. We may farther observe, after the judicious Mr Maundrell, that there is no forming an idea of its ancient flourishing state, when under the influence of heaven, from what it is now under a visible curse. And, if we had not several concurring testimonies from profane authors, who have extolled the fecundity of Palestine, that single one of Julian the apostate, a sworn enemy to Jews and Christians, as well as to all the sacred writings, would be more than sufficient to prove it; who frequently makes mention, in his epistles, of the perpetuity, as well as excellence and great abundance, of its fruits and product. The visible effects of God's anger, which this country has felt, not only under Titus Vespasian (when myriads of inhabitants were either slain, or perished by the most severe famine, pestilence, and other calamities; and the rest sold for slaves, into all lands; and new colonies sent to repopulate it; who found it in such a desolate state, as quite discouraged them from restoring it to its pristine fruitfulness); but much more since that emperor's time, in the inundations of the northern barbarians, of the Saracens, and of the more cruel and destructive Christians during the holy-war; and in the oppression it now feels under the Turkish yoke; may be easily owned to be more than sufficient to have wrought the dismal change we are speaking of, and to have reduced the far greater part into a mere desert.

Nevertheless, if we may credit those who have viewed it in this doleful condition, they will tell us, there are still such visible signs of its natural richness and fertility, as plainly show, that the bare want of culture is the main if not the only cause of its present poverty and barrenness. We shall hint, as a farther proof of this, what a learned traveller hath lately written of it from his own observations.

"The Holy Land (says Dr Shaw), were it as well peopled and cultivated as in former times, would still be more fruitful than the very best part of the coast of Syria and Phœnice; for the soil is generally much richer, and, all things considered, yields a preferable crop. Thus the cotton that is gathered in the

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plains of Ramah, Esdraelon, and Zabulun, is in greater esteem than what is cultivated near Sidon and Tripoli. Neither is it possible for pulse, wheat, or any sort of grain, to be more excellent than what is sold at Jerusalem. The barrenness, or scarcity rather, which some authors may, either ignorantly or maliciously, complain of, doth not proceed from the incapacity or natural unfruitfulness of the country, but from the want of inhabitants, and the great aversion there is to labour and industry in those few who possess it. There are, besides, such perpetual discords and depredations among the petty princes who share this fine country, that, allowing it was better peopled, yet there would be small encouragement to sow, when it was uncertain who should gather in the harvest. Otherwise, the land is a good land, and still capable of affording its neighbours the like supplies of corn and oil which it is known to have done in the time of Solomon."

And Volney, in his Travels in Egypt and Syria, *Volney's Travels, vol. ii.* observes, that though the whole of Palestine is almost an entire level plain, without either river or rivulet in summer, and only watered by the winter torrents, the soil is yet good, and may even be termed fertile; so when the winter rains do not fail, every thing springs up in abundance; and the earth, which is black and fat, retains moisture sufficient for the growth of grain and vegetables during the summer. More dourz, fescum, water-melons, and beans, are sown here than in any other part of the country. They also raise cotton, barley, and wheat; but though the latter be most esteemed, it is less cultivated, for fear of too much inviting the avarice of the Turkish governors and the rapacity of the Arabs.

Judea, in its largest sense, was divided into maritime and inland, as well as into mountainous and champaign; and again subdivided into Judea on this side, and Judea beyond Jordan. But the most considerable division is that which was made among the twelve tribes, by lot, to prevent all murmuring and discontent among that stubborn people*; of these, two and a half were seated beyond Jordan, and the rest on this side. The next remarkable division was made by king Solomon, who divided his kingdom into twelve provinces or districts, each under a peculiar officer; and every one of these was to supply the king with provisions for his household in his turn; that is, each for one month in the year†. But the most fatal division of all was, that which obtained under his imprudent son Rehoboam; when ten of the twelve tribes revolted, under the conduct of Jeroboam, who became head of this new monarchy, styled *the kingdom of Israel*, in opposition to that of *Judah*, the title which distinguished the named kingdom of Rehoboam from that time downwards. Under the second temple the distinction lasted a considerable time, and the same bloody hatred and hostilities continued between these two kingdoms; that of Israel taking the name of *Samaria* from its capital. The inhabitants were a mixture of the old Israelites, and of new colonies sent thither by the kings of Assyria after their conquest of it, till they were subdued by the Maccabees, and their metropolis destroyed. Under the Romans it began to be divided into tetrarchies and toparchies: the larger were those of Judea, Samaria, and Galilee, Upper and Lower; the lesser, those of Geraritica, Savona, and others of less note;

4 Q

all

Palestine,
Palestrina.

† Antiq. lib.
xiv.

all which lay on this side of the Jordan. The rest, on the other side, were those of Gilead, Peræa, Gaulonitis, Auranitis, Batanea, and Decapolis. Josephus mentions† another division made in Gabinius's time into five districts, or, as he styles them, *συνοδικα* or *councils*, agreeable to the Roman manner: these were Jerusalem, Jericho, and Sephoris on this side Jordan; and Gadaris and Amathus on the other. In the reigns of the Christian emperors, it was divided afresh into Palestina Prima, Palestina Secunda, and Palestina Tertia or Salutaris; which last included the far greater part, if not the whole country, as is known to all who are acquainted with history. On that account we shall wave all other divisions and changes that happened to it under the northern barbarians, Saracens, &c. and conclude this article with the present state and division of it under the Turks.—The whole country of Palestine is now reduced to a district or province, under the beglerbegate or bassaship of Scham or Damascus, who hath the seven following sangiacs or subgovernors under him, styled, according to the different places of their residence, 1. The sangiac of Damascus, who is under the basha of that province; 2. Of Jerusalem, or, as the Turks call it, *Cudjembaric* or *Coudscherif*; 3. Aglum; 4. Bahara; 5. Scifat; 6. Gaza; 7. Nabolos. Each of these has a number of ziamets, and each ziamet a number of timariots under them; for the better understanding of which terms, we shall refer our readers to Sir Paul Ricaut's account of the Ottoman empire. At present it will be sufficient to say of these inferior subdivisions, under the sangiac of this district, or sangiacate of Jerusalem, that it hath nine of the former and sixteen of the latter class. Neither must the reader imagine these sangiacates or sub-governments to be any thing considerable, or the residence of these officers to be places of any note or opulence. The former indeed live by oppressing the people under them, and extort contributions of every thing that comes within their reach, such as the protection of travellers, merchants, and caravans; but being all under their respective bashas, who are still more griping than their underlings, they are commonly fleeced of some considerable part of their unjust gains. As for the places of their residence, except it be here and there one in a considerable city, as at Damascus and Jerusalem, the rest are either some old cities or even inconsiderable villages.

There are a variety of curiosities in Palestine both natural and artificial; but they are so very numerous as almost to preclude description: we therefore refer our readers to the Ancient Universal History, Vol. II. where they are mentioned and particularly described. The principal mountains, rivers, and other places of note, have already been, or will be, noticed under their respective names.

PALESTRINA, a town of Italy, in the Campagna di Roma, with a bishop's see. It is the capital of a principality of the same name, and the bishop is one of the six cardinal bishops. It was anciently famous for the temple of Fortune, being then called *Præneste*, and seated on the top of a mountain, the ruins of which may yet be seen. E. Long. 12. 55. N. Lat. 41. 51.

PALESTRINA, is one of the largest and most populous of the islands called the Lagunes, near Venice,

and where the most considerable of the noblemen have houses of pleasure. It is 15,000 paces in length and 400 in breadth; the principal harbour has also the same name.

PALFIN (John), an eminent surgeon, anatomist, and reader in surgery at Ghent, the place of his birth; acquired great reputation by his learning and works. The principal of these are, 1. A Treatise on Osteology, in 12mo, Paris, 1731. 2. Anatomy of the Human Body, in 2 vols 8vo, Paris, 1734. He died at Ghent at a great age, in 1730.

PALFREY, is one of the better sort of horses used by noblemen or others for state; and sometimes of old taken for a horse fit for a woman to ride. Camden says, that William Fauconberge held the manor of Cukeny, in the county of Nottingham, in serjeantry, by the service of shoeing the king's palfrey when the king should come to Mansfield.

PALICAUD, or PALGATCHERRY, a fortress of considerable strength in India, which commands the passage between the two coasts of Malabar and Coromandel, by way of the Trichinopoly and Coimbatore countries: there is also a communication with it thro' the Nayre country. It is in the hands of the English; and is of great importance to them, because, as Coimbatore is in the hands of Tippoo, by our holding this place on the west, and Dindigul on the east of Coimbatore, the province is rendered of little use to Tippoo in time of war, unless he keeps a very large force there to protect it. See Memoir of a Map of the Peninsula of India by Major Rennel.

PALICATE, a sea-port town of India, on this side of the Ganges. It is seated on the coast of Coromandel, in the kingdom of Carnate, 70 miles north of Fort St George. Here the Dutch have a factory, and fort called the *Fort of Guelderland*. E. Long. 80. 1. N. Lat. 13. 34.

PALICI, or PALISCI (fab. hist.), two deities, sons of Jupiter by Thalia, whom Æschylus, according to Macrobius, calls *Ætna*, in a tragedy which is lost. The nymph Ætna, when pregnant, begged Jupiter to remove her from the pursuit of Juno. Upon which he concealed her in the bowels of the earth; and when the time of her delivery arrived, the earth opened and brought into the world two children, to whom were given the name of *Palici* *απο του παλιν ικεσθα*, because they came again into the world from the bowels of the earth. These deities were worshipped with many ceremonies by the Sicilians; and near their temple were two small lakes, which were supposed to have sprung out of the earth when they were born. Near these pools it was usual to take the most solemn oaths when any body wished to decide controversies and quarrels. If any of the persons who took the oaths were perjured, they were immediately punished supernaturally; and those whose oath, by the deities of the place, was sincere, departed unhurt. The Palici had also an oracle, which was consulted upon some great emergencies, and which rendered the truest and most unequivocal answers. In a superstitious age, the altars of the Palici were stained with the blood of human sacrifices; but this barbarous custom did not last long, as the deities were satisfied with the usual offerings.

PALINDROMUS, a verse or sentence which runs

Palfrey
Palindromus.

Palinge-
nesia
||
Palisades.

the same when read either backwards or forwards.
Such is the verse,

Roma tibi subito motibus ibit amor.

Some people of leisure have refined upon the Palindromus, and composed verses, each word of which is the same backwards as forwards; for instance, that of Camden:

*Odo tenet mulum, madidam mappam tenet Anna.
Anna tenet mappam madidam, mulum tenet Odo.*

PALINGENESIA, among divines, the same with regeneration. Among chemists, it denotes the producing of a body from its principles.

PALINGENIUS (Marcellus), well known by a poem divided into 12 books, and intitled *Zodiacus Vita*, which he was several years of composing, and dedicated to Hercules II. of Este, duke of Ferrara. Some say he was physician to the prince; others rank him among the learned Lutherans, to whom the duchess of Ferrara gave a reception in her court, and honoured with her protection. His *Zodiac* contains good things, and is a philosophical satire against immorality and false prejudices. Though this poem has borne a multitude of impressions, the author's life is but little known. He died some time between the years 1537 and 1543.

PALINODY, a discourse contrary to a preceding one: hence the phrase of *palinodiam canere* was taken for a recantation.

PALINURI PROMONTORIUM (Virgil, Velleius), with a cognominal port, was situated at the south extremity of the Sinus Paestanus, on the coast of Lucania; so called from Palinurus, Æneas's steersman, who there perished (Mela, Dionysius Halicarnassensis).

PALINURUS (fab. hist.), Æneas's pilot, whose fate Virgil very particularly describes. He fell into the sea when asleep; and was three days exposed to the tempests and its agitation, and at last came safe ashore, where the cruel inhabitants of the place murdered him to get his clothes. His body was left unburied on the sea-shore; and since, according to the religion of the old Romans, no one could cross the Stygian lake before 100 years were elapsed, if his remains had not been decently buried, we find Æneas, when he went down to hell, speaking to Palinurus, and assuring him, that though his bones were deprived of a funeral, yet the place where his body was exposed should soon be adorned with a monument, and bear his name; and accordingly a promontory was called *Palinurus*.

PALISADES, in fortification, stakes made of strong split wood, about nine feet long, six or seven inches square, three feet deep in the ground, in rows about two and an half or three inches asunder, placed in the covert way, at three feet from, and parallel to, the parapet or side of the glacis, to secure it from surprise. They are also used to fortify the avenues of open forts, gorges, half-moons, the bottoms of ditches, and in general all posts liable to surprise. They are usually fixed perpendicularly, though some make an angle inclining towards the ground next the enemy, that the ropes cast over them to tear them up may slip off.

Turning **PALISADES**; an invention of Mr Coehorn,

in order to preserve the palisades of the covert way from the besiegers shot. They are so ordered, that as many of them as stand in the length of a rod, or about ten feet, turn up and down like traps, so as not to be in sight of the enemy till they just bring on their attack; and yet are always ready to do the proper service of palisades.

PALISSE, in heraldry, a bearing like a range of palisades before a fortification, represented on a fesse, rising up a considerable height, and pointed a-top, with the field appearing between them.

PALIURUS, in botany. See **RHAMNUS**.

PALL, in heraldry, a figure like a Greek π , about the breadth of a pallet; it is by some heralds called a *cross-pall*, on account of its being looked upon as an archiepiscopal bearing.

PALLA, in Roman antiquity, a mantle which women wore over the gown called *stola*. It was borne on the left shoulder; whence passing to the other side, under the right arm, the two ends were bound under the left arm, leaving the breast and arm quite bare. It had a great many folds, and derived its name from $\pi α λ λ ω$, to shake or tremble.

PALLADIO (Andrea), a celebrated Italian architect of the 16th century, was a native of Vicenza in Lombardy, and the disciple of Trissin. He made exact drawings of the principal works of antiquity to be met with at Rome, adding commentaries to them, which went through several impressions. But this, though a very useful work, was greatly exceeded by the *Treatise of Architecture* in four books, which he published in 1570. Inigo Jones wrote some excellent remarks on it; which were included in an edition of Palladio, published by Leoni, in two vols folio, 1742.

PALLADIUM, in antiquity, a statue of the goddess Pallas. It was about three cubits high, and represented the goddess sitting and holding a pike in her right hand, and in her left a distaff and a spindle. It fell down from heaven near the tent of Ilus, as he was building the citadel of Ilium. Some, however, suppose, that it fell at Pessinus in Phrygia; or, according to others, Dardanus got it as a present from his mother Electra. There are some who maintain, that the palladium was made with the bones of Pelops by Abarris; but Apollodorus says, that it was no more than a piece of clock-work which moved of itself. However various the opinions of ancient authors be about this celebrated statue, it is universally allowed, that on its preservation depended the safety of Troy. This fatality the Greeks, during the Trojan war, were well aware of; and therefore Ulysses and Diomedes were commissioned to steal it. This they effected; and if we can rely upon the authority of some, they were directed how to carry it away by Helenus a son of Priam, who in this betrayed his country, because his brother Deiphobus, at the death of Paris, had married Helen, of whom he was enamoured. Minerva was enraged at the violence offered to her statue; and, according to Virgil, the palladium itself seemed to have received life and motion; and by the flashes which started from its eyes, and sudden springs from the earth, it seemed to show the resentment of the goddess. The true palladium, as is observed by some, was not carried away from Troy by the Greeks, but

Palisto
||
Palladium.

Palladius
||
Pallavicini.

only a statue of similar size and shape, which was placed near it, to deceive whatever sacrilegious persons attempted to steal it. The palladium, therefore, as they maintain, Æneas conveyed safe from Troy to Italy, and it was afterwards preserved by the Romans with the greatest secrecy and veneration in the temple of Vesta; a circumstance which none but the vestal virgins knew. It was esteemed the destiny of Rome; and there were several others made perfectly like it, to secure it from being stolen, as was that at Troy, which the oracle of Apollo declared should never be taken so long as the palladium was found within its walls. A palladium was also placed by Nicias in the citadel of Athens.

PALLADIUS, bishop of Helenopolis in Bithynia, and then of Aspona. He was a Galatian, and born at Cappadocia. He became an Anchorite in the mountain of Nebria in 388, and was consecrated a bishop in 401. He was an intimate friend of St John Chrysostom, whom he never forsook during the time of his persecution, nor even in his exile. He went to Rome some time after Chrysostom's death, and at the request of Lausus governor of Cappadocia, composed the history of the Anchorites or Hermits, and intitled it *Lausica*, after the name of that lord, to whom he dedicated it in 420, when it was written, being then in the 20th year of his episcopacy, and 53d of his age. Palladius was accused of being an Origenist. It is true, he was an enemy to St Jerome, of whom he does not speak well, and was intimately connected with Rufinus; but perhaps no good proof can be brought of his Origenism. He had been the disciple of Evagrius of Pontus, and was even suspected of entertaining the sentiments of Pelagius. He died in the 5th century, but in what year is not certain. His History was published in Greek by Meurfius at Amsterdam in 1619, and in Latin in the *Bibliotheca Patrum*: but he seems not to have been the writer of the Life of St John Chrysostom, in Greek and Latin by M. Bigot, printed in 1680.

PALLAS, a freed man of Claudius, celebrated for the power and the riches which he obtained. He advised the emperor his master to marry Agrippina, and to adopt her son Nero for his successor. It was through him and Agrippina that the death of Claudius was hastened, and that Nero was raised to the throne. Nero, however, forgot to whom he was indebted for it. He discarded Pallas, and some time after caused him to be put to death, that he might procure his great riches.

PALLAVICINI (Ferrante), an Italian wit of considerable note, was descended from a branch of a noble family seated in Placentia, where he was born about the close of the 16th century. He soon gave great proofs of an extraordinary genius, and quickly acquired a masterly knowledge in the elements of classical erudition. He was afterwards sent to complete his education in the monastery of Augustin friars at Milan, where he took the habit, lived much esteemed, improved himself in piety as well as learning, and raised great expectations of future fame; but being somewhat amorously inclined, he engaged in an intrigue with a young courtesan of Venice, whose charms proved irresistible; and in order to enjoy them without restraint, he obtained leave from his

general to make the tour of France. Accordingly, Pallavicini he pretended to set out for that country; but it was only a blind to cover his real design. He never left Venice, but lived there privately, enchanted in the arms of his Venus: and having too ready a talent at invention, he imposed upon his friends, by often sending them in letters feigned accounts of his travels through France; also informing them of several things respecting that court, which he learned from the advices of many considerable persons with whom he corresponded.

His money in the meantime flew with expanded wings, and he soon found his purse much drained. In this exigence he naturally had recourse to his wits for supplies. He wrote for the booksellers; and composed several pieces, more for the sake of lucre than out of fondness for authorship. Among other things, he wrote a collection of letters, mostly satirical, which he called *the Courier robbed of his Mail*. The work appeared at first in such a cast, as could not give great offence except to the Spaniards, against whom he had some grudge. The piece was accordingly licensed by the inquisitors; but falling into the hands of the secretary of the republic of Venice, who at that time was licenser of books, he would not give his imprimatur, though great interest was employed for that purpose, neither would he return the manuscript. This enraged Pallavicini so much, that had not his friends restrained him, he would have pursued the affair to his ruin.

At length he found an opportunity of travelling into Germany with duke Analfi as his chaplain.— This journey, as was to be expected, had no good effect either upon his wit or his morals. On the contrary, finding himself, from the manners of the Germans, more at liberty, he indulged his genius and passions with greater ease; and after a residence there of upwards of a year with the duke, he returned to Venice, with a face marked all over with blotches like the evil, and a spirit resolved to sacrifice to his resentment at the risk of his life. He was resolved to have his full measure of revenge against the secretary of the republic for keeping his manuscript; and with him his resentment joined the family of the Barberini, pope Urban VIII. and his nephews, because they also endeavoured, at the instigation of the Jesuits, to get all his manuscripts forbid the press. In this rancorous spirit he cast his Courier into a new model, and enlarged it with many letters and discourses. Thus new modelled, he offered it to a bookseller, who undertook to get it printed; but our author was betrayed by a pretended friend, who acted the part of a spy, and informed the archbishop of Vitelli, then the Pope's nuncio at Venice, just as the work was finished at the press: at the same time, this treacherous friend bought the whole impression; and upon the nuncio's complaint, Pallavicini was imprisoned. In this miserable condition he found a friend in one of his mistresses, who, seeing him abandoned by most of his patrons, not only supported him, but conveyed letters to him, by which she gave him such informations as enabled him to make a proper defence, and to recover his liberty.

But a war having in the mean time broke out between the Barberini and the duke of Parma; Pallavicini,

Pallavicini. vicini, in order to revenge himself upon the supposed instruments of his imprisonment, wrote a piece intitled "The tinkling Instrument to call together the Barberini Bees;" and dedicated it in terms of the profoundest contempt to the nuncio Vitelli. The nuncio finding that little notice was taken of his complaints on the occasion, procured by bribery one Charles Morfu, a Frenchman of infamous character, who pretended to pass for a gentleman, to ensnare Pallavicini: to which end, the traitor used his best endeavours to insinuate himself into his friendship, and at length exhorted him to accompany him to France. He declared that his fortune would be made by the extraordinary encouragement which was given to men of letters by Cardinal Richelieu; and the better to favour the deceit, he produced feigned letters from the Cardinal, inviting our author to France, and expressing a desire he had to establish in Paris an academy for the Italian tongue, under the direction of Pallavicini. The snare took; and now, fascinated by the prospect of gain, Pallavicini suffered himself to be led like an ox to the slaughter, whithersoever Morfu thought proper. He left Venice much against the advice of his friends, and went first to Bergamo, where he spent a few days with some of his relations, by way of giving some entertainment to Morfu. They then set off for Geneva, to the great satisfaction of our author, who proposed to get some of his works printed there, which he had not been able to do in Italy. Morfu, however, instead of conducting him to Paris, took the road to Avignon; where, crossing the bridge of Soraces, in the county of Venaissin, they were seized by a gang of *shirri*, or sheriff's officers, on pretence of carrying contraband goods, and confined. Morfu was quickly discharged, and very liberally rewarded; but Pallavicini, being carried to Avignon, was imprisoned; and notwithstanding, on his examination concerning some papers found upon him, he made a very artful defence, it was in vain. The sentence was already brought from Rome, and he was to undergo a trial merely for form's sake. For this purpose being put into a dark dungeon, he made another effort to escape. He managed matters so well with his keeper, as to procure wax candles to be allowed him, under pretence of amusing himself with reading; and when he had got a number of these, he set fire one night to the prison-door, in order to get off by that means; but the stratagem did not succeed, and he was of course confined much closer, and treated with great inhumanity. After a year's suffering, he was brought to trial, in which he made an excellent defence, and flattered himself with hopes of relief. He had even begun a whimsical piece on the subject of melancholy; but, contrary to his expectations, he was sentenced to die, and lost his head on a scaffold in the flower of his age.

He was of so heedless and profuse a disposition, that had he possessed an immense estate he would have spent it all. He was never engaged in a virtuous passion, being inflamed to a prodigious and unnatural degree with the love of the meanest and most infamous prostitutes. On the other hand, no one could be more sincere and faithful in his friendships, nor was ever a man a greater prey to treachery; inasmuch, that when released from prison in Venice, he was told that a wretch had betrayed him, he could not be prevailed upon to believe it, saying, "How can this be, since

he declared himself my friend, and I made him privy to all my concerns!" He used, while he wore a religious habit, to study or write two or three hours in bed every morning. The rest of the day he spent either in the company of idle persons or else with the ladies: but after he had wholly left the monastic life, upon pretence of securing himself from the snares of his enemies, he lived in a very irregular manner. He was possessed of a fine genius, and had a great facility in writing; and till he was corrupted by the commerce of mean lewd women, he wrote pieces worthy of immortality. He did not spend much time or pains either in composition or in revision, for he frequently sent to the press the very first exertions of his genius; yet nature had given him so noble a vein of eloquence, which he had greatly improved by perusing the best authors, that his first thoughts were often equal to the most laboured compositions. He was modest, and spoke of himself with diffidence; but his works are strongly tinged with envy, malice, and gall. He made but a poor figure in conversation; and when with persons of worth and distinction, would often retire to a corner of the room, and seem quite wrapt up in thought. He never exerted his wit and humour after his return from Germany, but when he was in the company of some mean women. Upon the whole, it is difficult to determine whether vice or virtue was the most predominant feature in his character. His death gave birth to a dialogue, intitled, *Anima erranti di Ferrante Pallavicini*, or, "The wandering Ghost of Pallavicini." Besides his life at the head of his works in two volumes, there is another prefixed to the "Divortio celeste," at Amsterdam in 1696.

PALLENE, a small peninsula of Thrace or Macedonia, formerly called *Pblegra*. It is situated near the bay of Thermæ, and contains five cities, the principal of which is called *Pallene*. It was famous, according to some of the ancients, for an engagement between the gods and the giants.

PALLET, among painters, a little oval table, or piece of wood, or ivory, very thin and smooth; on and round which the painters place the several colours they have occasion for, to be ready for the pencil. The middle serves to mix the colours on, and to make the tints required in the work. It has no handle, but, instead thereof, a hole at one end to put the thumb through to hold it.

PALLET, among potters, crucible-makers, &c. a wooden instrument, almost the only one they use, for forming, heating, and rounding their works. They have several kinds: the largest are oval, with a handle; others are round, or hollowed triangularly; others, in fine, are in manner of large knives, serving to cut off whatever is superfluous on the moulds of their work.

PALLET, in gilding, an instrument made of a squirrel's tail, to take up the gold leaves from the pillow, and to apply and extend them on the matter to be gilt. See **GILDING**.

PALLET, in heraldry, is nothing but a small pale, consisting of one half of it in breadth, and therefore there are sometimes several of them upon one shield.

PALLET, is also a part belonging to the balance of a watch or movement. See the article **WATCH**.

PALLIATÆ, a name which the Romans give to such plays as laid the plot in Greece, and required the per-

Pallavicini
Palliatae.

Palliation
||
Palm.

performers to appear in Grecian habits. It is used in contradistinction to *togata*, in which the scene was laid at Rome, and in which the dresses were Roman. The word *palliatæ* is derived from *pallium*, which was a part of dress peculiar to the Greeks; whereas the toga belonged to the Romans only. See *TOGATÆ*, *COMEDY*, &c.

PALLIATION, or a **PALLIATIVE Cure**, in medicine, is when, in desperate and incurable diseases, after predicting the fatal event, the physician prescribes some remedies for mitigating the pain or some other urgent symptoms, as in ulcerated cancers, or cancerous fistulas, and the like.

PALLIO Cooperire. It was an ancient custom, where children were born out of lawful wedlock, and their parents were afterwards married, that those children, together with the father and mother, should stand *pallio cooperti*, under a cloth, while the marriage was solemnizing; which was a kind of adoption, and had the effect of a legitimation. Thus Robert Grossthead, the famous bishop of Lincoln, in one of his letters, says: *In signum legitimisationis, nati ante matrimonium consueverunt poni sub pallio super parentes eorum extento, in matrimonii solemnizatione.*

Selden, in his notes on Fleta, adds, that the children of John of Gaunt, duke of Lancaster, by Catharine Swinford, though legitimated by act of parliament, yet were covered with the pall when their parents were married.

PALLIUM, a word often mentioned in our old historians. Durandus tells us, that it is a garment made of white wool, after the following manner, viz. The nuns of St Agnes, every year, on the feast-day of their saint, offer two white lambs on the altar of their church, during the time they sing *Agnus Dei*, in a solemn mass; which lambs are afterwards taken by two of the canons of the Lateran church, and by them given to the Pope's subdeacons, who send them to pasture till shearing time, and then they are shorn, and the pall is made of their wool mixed with other white wool. The pall being thus made, is carried to the Lateran church, and there placed on the high altar, by the deacons of that church, on the bodies of St Peter and St Paul; and after an usual watching, it is carried away in the night, and delivered to the subdeacons, who lay it up safe. And because it was taken from the body of St Peter, it signifies the plenitude of ecclesiastical power: and therefore it was the prerogative of popes, who pretend to be the immediate successors of that saint, to invest other prelates with it; which at first was done nowhere but at Rome, though afterwards at other places.

PALLIUM, in antiquity, an upper garment or mantle worn by the Greeks, as the toga was by the Romans. Each of these were so peculiar to the respective nations, that *Palliatum* is used to signify a Greek, and *Togatus* a Roman.

PALM, has among almost all nations been regarded as an emblem of victory, and assigned as the reward of it. The reason why this tree was adopted, and made use of to represent victory, is said to be, because it is so elastic, that if pressed by the greatest weight, it will rise superior to the pressure, and be able to restore itself to its former state, appearing almost invincible.

PALM Sunday, in the Christian church, the Sunday

next before Easter; being so called in memory of our Saviour's triumphal entry into Jerusalem, when the multitude that attended him strewed branches on his way.

The ancients had other names for this day. For, 1. They called it *Dominica Competentium*, i. e. Sunday of the Competentes; because on that day the catechumens came to ask the bishop leave to be admitted to baptism, which was conferred the Sunday following. They had also then given them the symbol or credo, to get off by heart, to be repeated to the bishop in the ceremony of baptism. 2. They called it *Capitulvium*, the Sunday of washing the head; because those who were to be baptised the following Sunday, were prepared by washing their heads on this day. Some time afterwards they called it *Indulgence Sunday*, because the emperors and patriarchs used to distribute gifts on that day.

PALM-Tree, in botany. See **PHOENIX**.

PALMA, or *PALMA-Nova*, a very strong town of Italy, in the territory of Venice, and in Friuli. It is a very important place, for the defence of the Venetians against the Austrians and Turks; and was built in 1593, for that very purpose. They have cut a canal near this place, which is very advantageous. It is seated on the sea-side, 10 miles south-east of Udino, and 55 north-east of Venice. E. Long. 13. 15. N. Lat. 46. 2.

PALMA, an island in the Atlantic Ocean, and one of the Canaries, 36 miles north-west of Gomera, and about 75 in circumference. It abounds in wine and sugar; and has a handsome town of the same name, which carries on a trade in wine to the West Indies and other parts. Their best vines grow in a soil called the *Brenia*, where they make 12,000 butts of wine every year, which is well known by the name of *palm-wine*. There is plenty of cattle, and all sorts of fruits. In 1625 a volcano broke out in this island, with a most violent earthquake; the flame was seen for six weeks together, and a great quantity of ashes were thrown as far as Teneriff. It was conquered by the Spaniards in 1460.

PALMÆ, *Palms*. Under this name Linnæus has arranged several genera, which, although capable of a place in separate classes of his system, he chooses rather, on account of their singular structure, to place apart, in an appendix to the work.—See **ARECA**, **CHAMÆROPS**, **PHOENIX**, **COCOS**, &c.; and **CORYPHA**.

The same plants constitute one of the seven families or tribes into which all vegetables are distributed by Linnæus in his *Philosophia Botanica*. They are defined to be plants with simple stems, which at their summit bear leaves resembling those of the ferns, being a composition of a leaf and a branch; and whose flowers and fruit are produced on that particular receptacle or seat called a *spadix*, protruded from a common calyx in form of a sheath or scabbard, termed by Linnæus *spatha*.

Palma is likewise the name of the first order in Linnæus's Fragments of a Natural Method. See **BOTANY**, p. 457.

PALMARIS MUSCLE, in anatomy. See there, *Table of the Muscles*.

PALMATED, something resembling the shape of the hand: thus we say, palmated leaves, roots, stones, &c.

Palma
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Palmated.

Palmer-
ston
||
Palmyra.

PALMERSTON'S ISLAND, situated in the South Seas, which Captain Cook visited in his second and last voyages. It consists of a group of small islets, nine or ten in number, connected by a reef of coral rocks, and lying in a circular direction. It admits of no anchorage, nor are there any inhabitants on it, though it abounds with cocoa-nuts, scurvy-grass, and the wharra-tree. This island is not more than a mile in circumference, and is not elevated above three feet above the level of the sea. It consists entirely of a coral sand, with a small mixture of blackish mould, which appeared to be produced from rotten vegetables. "At one part of the reef (say our navigators), which bounds the lake within, almost even with the surface, there was a large bed of coral, which afforded a most enchanting prospect. Its base, which was fixed to the shore, extended so far that it could not be seen, so that it appeared to be suspended in the water. Even this delightful scene was greatly improved by the multitude of fishes that gently glided along, seemingly with the most perfect security. Their colours were the most beautiful that can be imagined, blue, yellow, black, red, &c. far excelling any thing that can be produced by art. The richness of this submarine grotto was greatly increased by their various forms; and the whole could not possibly be surveyed without a pleasing transport, accompanied at the same time with regret, that a work so astonishingly elegant should be concealed in a place so seldom explored by the human eye." E. Long. 196. 35. S. Lat. 18. 8.

PALMIPEDES, among ornithologists, the same with web-footed birds. See ORNITHOLOGY.

PALMISTRY, a kind of divination, or rather a deceitful art practised by gypsies, who pretend to foretell events by looking upon the lines and marks of the hand.

PALMUS, a long measure used both by the Greeks and Romans. The Grecian palmus was of two sorts; the greater, which contained nine finger-breadths, and the less which contained four. The Roman palmus was also of two sorts; the greater, which contained twelve finger-breadths, or eight inches and an half English; and the less, which contained four finger-breadths, or near three inches English.—The great palmus was taken from the length of the hand or span; the less from the breadth of it. The Greek palmus was called *doron*. See MEASURE.

PALMYRA, or **TADMOR**, a noble city of ancient Syria, now in ruins, the origin of whose name is uncertain. Neither is it well known by whom this city was built; for though, from the identity of the names, it is thought by many to have been the *Tadmor in the wilderness* built by Solomon*, this point, however, is much controverted by many learned men. For the world have been long and justly astonished to find in the Desert of Syria, at a distance from the sea, with a very precarious and scanty supply of water only, and without a particular connection with any great monarchy, ruins of a city more extensive and splendid than Rome itself, the deposit of all the arts which Greece in its most flourishing periods could afford. The problem is an intricate one; yet when we divest it of many of its difficulties, we shall bring this stupendous prodigy to no very uncommon magnitude. The coast of Syria was in very early ages rich and populous; and either

from the conveniency of procuring water, or from the vicinity of India and Egypt, the population, instead of increasing on the mountains, extended to Judea, and from thence through its plains only to the internal parts. The ruins of this numerous people, and of their habitations, remain; but as their edifices were not uncommonly splendid, or, as the causes of their destruction were powerful, they have not attracted much attention. Yet the ruins of more than 30 towns are discoverable to the south east of the Dead Sea, and from thence towards Tadmor or Palmyra: we know the cause of the destruction of these towns, and we know that it did not reach Palmyra. This splendid city was not, therefore, insulated in a mass of sand: it was probably a link of a continued chain of population, or perhaps its termination. The situations of towns in the Sandy Desert must necessarily be determined by local advantages. Tadmor is situated where two hills converge, and beyond the point where they approach. These hills afforded water, that necessary aid to animal life; and the aqueducts through which it was brought from them were discovered and described by Mr Wood. Though the other towns now in ruins afford some remains of luxury and opulence, yet in these respects they are much inferior to Palmyra; and this deserves to be explained. Palmyra was undoubtedly very ancient. "The two springs of fresh water it possesses (says Volney †) were, above all, a powerful inducement in a desert everywhere else so parched and barren. These, doubtless, were the two principal motives which drew the attention of Solomon, and induced that commercial prince to carry his arms so remote from the limits of Judea." "He built strong walls there (says the historian Josephus), to secure himself in the possession, and named it *Tadmor*, which signifies the Place of Palm trees." Hence it has been inferred that Solomon was its first founder; but we should, from this passage, be rather led to conclude that it was already a place of known importance. The palm-trees he found there are not the trees of uninhabited countries. Prior to the days of Moses, the journeys of Abraham and Jacob from Mesopotamia into Syria, sufficiently prove a communication between these countries, which must soon have made Palmyra flourish. The cinnamon and pearls mentioned in the time of the Hebrew legislator, demonstrate a trade with India and the Persian Gulph, which must have been carried on by the Euphrates and Palmyra. At this distance of time, when the greater part of monuments of these early ages have perished, we are liable to form very false opinions concerning the state of these countries in those remote times, and are the more easily deceived, as we admit as historical facts antecedent events of an entirely different character. If we observe, however, that men in all ages are united by the same interests and the same desires, we cannot help concluding, that a commercial intercourse must early have taken place between one nation and another, and that this intercourse must have been nearly the same with that of more modern times. Without, therefore, going higher than the reign of Solomon, the invasion of Tadmor by that prince is sufficient alone to throw a great light on the history of this city. The king of Jerusalem would never have carried his attention to so distant and detached

Palmyra.

Travels
through Sy-
ria and
Egypt.

* 1 Kings,
ix. 18. and
2 Chron.
viii. 4. and
Josephus,
Ant. Jud.
lib. i.

Palmyra. tached a spot, without some powerful motive of interest; and this interest could be no other than that of an extensive commerce, of which this place was already the emporium. This commerce extended itself to India, and the Persian Gulph was the principal point of union."

From the nature of the commodities, from the requisite assistance of the Tyrians, and other forcible arguments, M. Volney shows that the Persian Gulph was the centre of the most ancient commerce of the eastern world; and that it was with a view of obtaining a shorter route, by means of the Euphrates, that Solomon turned his attention to Tadmor, distant but three days journey from it. Our author goes on, "We may even reasonably conjecture, when we reflect on the revolutions of the following ages, that this commerce became a principal cause of those various wars in Lower Asia, for which the barren chronicles of those early times assign no motives. If, after the reign of Solomon, the Assyrians of Nineveh turned their ambitious views towards Chaldea, and the lower part of the Euphrates, it was with the intention to approach that great source of opulence the Persian Gulph. If Babylon, from being the vassal of Nineveh, in a short time became her rival, and the seat of a new empire, it was because her situation rendered her the emporium of this lucrative trade; in short, if the kings of this great city waged perpetual wars with Jerusalem and Tyre, their object was not only to despoil these cities of their riches, but to prevent their invading their trade by the way of the Red Sea. An historian who has informed us that Nabuchodonosor, before he laid siege to Jerusalem, took possession of Tadmor, clearly indicates that the latter city acted in concert with the two neighbouring capitals. Their gradual decline became, under the Persian empire and the successors of Alexander, the efficient cause of the sudden greatness of Palmyra in the time of the Parthians and Romans; she then enjoyed a long peace for many centuries, which allowed her inhabitants to erect those monuments of opulence whose ruins we still admire." If the former observations showed the connection of this remote spot with a more populous country, these remarks explain the cause of the renovation, and of the magnificence of this city. Our author's remarks are at least probable, and are, in our opinion, very convincing. Cairo, in another, probably a subordinate route, never attained the splendor of Palmyra; but the genius of the Egyptians, perhaps the laws of Egypt, prevented it.

There is, however, no authentic history of Palmyra till after the captivity of the Roman emperor Valerian by the Persians. It is first mentioned by the Roman historians, as a place which Mark Antony attempted to plunder, upon pretence that it had not observed a just neutrality between the Romans and Parthians. Pliny takes notice of it as being situated in a rich soil, among pleasant streams, and totally separated from the rest of the world by a vast sandy desert, which had preserved its independence between Parthia and Rome. There is still a considerable spot of good soil next the town and on the hills; and even in the wilderness, there were palms and fig-trees, some of which remained till the latter end of the 17th century, though not one is now to be found.

After the captivity of Valerian, it was become an opulent city, to which its situation in the vicinity of the Roman and Parthian empires greatly contributed; as the caravans, in going to or returning from the East, frequented the place, and thus rendered it a considerable seat of merchandize. It enjoyed an independency till the time of Trajan; who, having made himself master of almost all the Parthian empire, reduced Palmyra likewise, and it was afterwards accounted part of the Roman dominions. But when the defeat and captivity of Valerian had so much weakened the empire, that the Persians seemed to be in a fair way of becoming masters of all the eastern provinces, the Palmyrenians began to entertain thoughts of recovering their liberty. Odenathus, prince of Palmyra, sent a very respectable letter to Sapor on his return, accompanied with considerable presents; but by that haughty conqueror his letter and embassy were treated with the most provoking contempt. The presents were thrown into the Euphrates; and to his letter Sapor replied, That his insolence in presuming to write to his lord was inexcusable; but if he could atone for it in any way, it would be by presenting himself before the throne bound hand and foot, in token of a consciousness of his crime, and the punishment he deserved. With this injurious treatment Odenathus was so provoked, that he swore either to bring down the pride of the haughty conqueror, or die in the attempt. Accordingly, having assembled what forces he could, he fell upon the Persians, destroyed a number of them, took a great part of their baggage, and some of the king's concubines. Of the war of Odenathus with the Persians, however, we know very little: only that though the latter were often vanquished, and the independency of Palmyra established for the present; yet Valerian was never released from his captivity, though Odenathus earnestly wished to have the honour of rescuing him from his enemies.

Odenathus enjoyed his sovereignty but a very short time; being murdered by his nephew, who was soon after put to death by Zenobia the wife of Odenathus. This lady is said to have been possessed of very extraordinary endowments both of body and mind, being, according to Mr Gibbon, almost the only Asiatic woman who is recorded to have overcome the obstacles arising from the confined situation of the fair sex in that part of the world. Immediately on taking vengeance for the murder of her husband, she assumed the government, and soon strengthened herself so much, that she resolved to submit neither to the Roman nor Persian power. The neighbouring states of Arabia, Armenia, and Persia, dreaded her enmity, and solicited her alliance. To the dominions of Odenathus, which extended from the Euphrates to the frontiers of Bithynia, his widow added the inheritance of her ancestors, the populous and fertile kingdom of Egypt. The emperor Claudius acknowledged her merit, and was content, that, while he pursued the Gothic war, she should assert the dignity of the empire in the East. The conduct, however, of Zenobia, was attended with some ambiguity; nor is it unlikely that she had conceived the design of erecting an independent and hostile monarchy. She blended with the popular manners of Roman princes the stately pomp of the courts of Asia, and exacted from her subjects the same adoration that

Palmyra. was paid to the successors of Cyrus. She bestowed on her three sons a Latin education, and often showed them to the troops adorned with the imperial purple. For herself she reserved the diadem, with the splendid but doubtful title of *Queen of the East*.

When Aurelian passed over into Asia, against an adversary whose sex alone could render her an object of contempt, his presence restored obedience to the province of Bithynia, already shaken by the arms and intrigues of Zenobia. Advancing at the head of his legions, he accepted the submission of Ancyra; and was admitted into Tyana, after an obstinate siege, by the help of a perfidious citizen. The generous, though fierce temper of Aurelian, abandoned the traitor to the rage of the soldiers: a superstitious reverence induced him to treat with lenity the countrymen of Apollonius the philosopher. Antioch was deserted on his approach; till the emperor, by his salutary edicts, recalled the fugitives, and granted a general pardon to all who, from necessity rather than choice, had been engaged in the service of the Palmyrenian queen. The unexpected mildness of such a conduct reconciled the minds of the Syrians, and, as far as the gates of Emesa, the wishes of the people seconded the terror of his arms.

Zenobia would have ill deserved her reputation, had she indolently permitted the emperor of the West to approach within 100 miles of her capital. The fate of the East was decided in two great battles; so similar in almost every circumstance, that we can scarcely distinguish them from each other, except by observing that the first was fought near Antioch, and the second near Emesa. In both, the queen of Palmyra animated the armies by her presence, and devolved the execution of her orders on Zabdas, who had already signalized his military talents by the conquest of Egypt. The numerous forces of Zenobia consisted for the most part of light archers, and of heavy cavalry clothed in complete steel. The Moorish and Illyrian horse of Aurelian were unable to sustain the ponderous charge of their antagonists. They fled in real or affected disorder, engaged the Palmyrenians in a laborious pursuit, harassed them by a desultory combat, and at length discomfited this impenetrable but unwieldy body of cavalry. The light infantry, in the mean time, when they had exhausted their quivers, remaining without protection against a closer onset, exposed their naked sides to the swords of the legions. Aurelian had chosen these veteran troops, who were usually stationed on the Upper Danube, and whose valour had been severely tried in the Allemannic war. After the defeat of Emesa, Zenobia found it impossible to collect a third army. As far as the frontier of Egypt, the nations subject to her empire had joined the standard of the conqueror; who detached Probus, the bravest of his generals, to possess himself of the Egyptian provinces. Palmyra was the last resource of the widow of Odenathus. She retired within the walls of her capital; made every preparation for a vigorous resistance; and declared with the intrepidity of a heroine, that the last moment of her reign and of her life should be the same.

In his march over the sandy desert, between Emesa and Palmyra, the emperor Aurelian was perpetually harassed by the Arabs; nor could he always defend his army, and especially his baggage, from those flying

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troops of active and daring robbers, who watched the moment of surprise, and directed the slow pursuit of the legions. The siege of Palmyra was an object far more difficult and important; and the emperor, who with incessant vigour pressed the attacks in person, was himself wounded with a dart. "The Roman people," (says Aurelian, in an original letter), "speak with contempt of the war which I am waging against a woman. They are ignorant both of the character and of the power of Zenobia. It is impossible to enumerate her warlike preparations, of stones, of arrows, and of every species of missile weapons. Every part of the walls is provided with two or three balistæ, and artificial fires are thrown from her military engines. The fear of punishment has armed her with a desperate courage. Yet I trust still in the protecting deities of Rome, who have hitherto been favourable to all my undertakings." Doubtful, however, of the protection of the gods, and of the event of the siege, Aurelian judged it more prudent to offer terms of an advantageous capitulation: to the queen, a splendid retreat; to the citizens, their ancient privileges. His proposals were obstinately rejected, and the refusal was accompanied with insult.

The firmness of Zenobia was supported by the hope, that in a very short time famine would compel the Roman army to repass the desert; and by the reasonable expectation that the kings of the East, and particularly the Persian monarch, would arm in the defence of their most natural ally. But fortune, and the perseverance of Aurelian, overcame every obstacle. The death of Sapor, which happened about this time, distracted the councils of Persia; and the inconsiderable succours that attempted to relieve Palmyra were easily intercepted either by the arms or the liberality of the emperor. From every part of Syria a regular succession of convoys safely arrived in the camp, which was increased by the return of Probus with his victorious troops from the conquest of Egypt. It was then that Zenobia resolved to fly. She mounted the fleetest of her dromedaries; and had already reached the banks of the Euphrates, about 60 miles from Palmyra, when she was overtaken by the pursuit of Aurelian's light-horse, seized, and brought back a captive to the feet of the emperor. Her capital soon after surrendered, and was treated with unexpected lenity. The arms, horses, and camels, with an immense treasure of gold, silver, silk, and precious stones, were all delivered to the conqueror; who, leaving only a garrison of 600 archers, returned to Emesa, and employed some time in the distribution of rewards and punishments at the end of so memorable a war, which restored to the obedience of Rome those provinces that had renounced their allegiance since the captivity of Valerian.

When the Syrian queen was brought into the presence of Aurelian, he sternly asked her, How she had presumed to rise in arms against the emperors of Rome? The answer of Zenobia was a prudent mixture of respect and firmness: "Because I disdained to consider as Roman emperors an Aureolus or a Gallienus. You alone I acknowledge as my conqueror and my sovereign." But as female fortitude is commonly artificial, so it is seldom steady or consistent. The courage of Zenobia deserted her in the hour of trial; she trembled at the angry clamours of the soldiers, who called

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aloud

Palmyra. aloud for her immediate execution; forgot the generous despair of Cleopatra, which she had proposed as her model; and ignominiously purchased life by the sacrifice of her fame and her friends. It was to their councils, which governed the weakness of her sex, that she imputed the guilt of her obstinate resistance; it was on their heads that she directed the vengeance of the cruel Aurelian. The same of Longinus, who was included among the numerous and perhaps innocent victims of her fear, will survive that of the queen who betrayed, or the tyrant who condemned him. Genius and learning were incapable of moving a fierce unlettered soldier, but they had served to elevate and harmonise the soul of Longinus. Without uttering a complaint, he calmly followed the executioner, pitying his unhappy mistress, and bestowing comfort on his afflicted friends.

Returning from the conquest of the East, Aurelian had already crossed the straits which divide Europe from Asia, when he was provoked by the intelligence that the Palmyrenians had massacred the governor and garrison which he had left among them, and again erected the standard of revolt. Without a moment's deliberation, he once more turned his face towards Syria. Antioch was alarmed by his rapid approach, and the helpless city of Palmyra felt the irresistible weight of his resentment. We have a letter of Aurelian himself, in which he acknowledges, that old men, women, children, and peasants, had been involved in that dreadful execution, which should have been confined to armed rebellion: and although his principal concern seems directed to the re-establishment of a temple of the sun, he discovers some pity for the remnant of the Palmyrenians, to whom he grants the permission of rebuilding and inhabiting their city. But it is easier to destroy than to restore. The seat of commerce, of arts, and of Zenobia, gradually sunk into an obscure town, a trifling fortress, and at length a miserable village.

Little is known concerning the fortunes of Palmyra since the time of Mahomet, except that it was considered as a place of strength; and that in the 12th century there were 2000 Jews in it. With respect to the ruins, they appeared to be of two different and distinct periods; the oldest are so far decayed as not to admit of mensuration, and look as if they had been reduced to that state by the hand of time; the others appears to have been broken into fragments by violence. Of the inscriptions none are earlier than the birth of Christ, and none are later than the destruction of the city by Aurelian, except one, which mentions Dioclesian.

Mr Wood is of opinion, that the face of the country which surrounds Palmyra was always the same; but though Palmyra was always said to be situated in a wilderness, it does not follow that the wilderness was always of the same extent: it is perhaps more probable, that when Palmyra was first settled, the rich soil mentioned by Pliny extended much farther; for whatever were the reasons for making a settlement there, Palmyra can scarcely be supposed to have invited a greater number of people than it could feed. The palms and fig trees that were formerly found on the hills, and in the borders of the desert, that are now

totally barren, confirm this opinion. Mr Wood observes, that while he was there a whirlwind happened, which took up such quantities of sand as quite darkened the sky; this sand therefore might by degrees encroach upon the fertile environs of Palmyra, and reduce the number of inhabitants as it reduced their sustenance, till the few wretched families only were left, who found it difficult to furnish food for Mr Wood and his company, though they did not continue longer than a fortnight among them. It will also appear from history, that what is supposed to have happened here has happened at other places, where such an event was much less probable. * On the sea coast in the neighbourhood of St Pol de Leon, in Lower Breagne, there is a considerable tract of land which before the year 1666 was inhabited, but which was rendered uninhabitable by a sand, which encroaching every year, covered it to the depth of above 20 feet. In the year 1718 it had advanced more than six leagues, and within one league of St Pol; so that it was then thought probable that the town would of necessity be abandoned. This sand is raised by the east or north-east wind, which drives it in clouds with great swiftness, and in a prodigious quantity. It was also attested by the captain of a ship, and all on board, that in the year 1719 there fell in the Atlantic Ocean, at 15 degrees of north latitude, and at the distance of more than eight leagues from any land, a shower of sand, some of which they produced, and deposited in the academy at Paris †.

The company with whom Mr Wood, the publisher of the Ruins of Palmyra, travelled, arrived at length at the end of the plain, where a ridge of barren hills, by which it was divided on the right and left, seemed to meet; between them there was a vale, through which an aqueduct formerly conveyed water to Palmyra. On each side of this vale they remarked several sepulchres of the ancient Palmyrenes, which they had scarce passed, when the hills opening on a sudden, they discovered such piles of ruin as they had never seen. They were all of white marble; and beyond them, towards the Euphrates, was a wide level, stretching farther than the eye could reach, totally desolate, without variety, and without bounds. After having gazed some time upon this prospect, which rather exceeded than fell short of their expectations, they were conducted to one of the huts of the Arabs, of which there are about 30 in the court of the great temple. The inhabitants of both sexes were well shaped, and the women, though very swarthy, had good features. They were veiled, but did not so scrupulously conceal their faces as the eastern women generally do. They paint the ends of their fingers red, their lips blue, and their eye-brows and eye lashes black. They had large rings of gold or brass in their ears and nostrils, and appeared to be healthy and robust. The walls of the city are flanked by square towers, into which some ancient funeral monuments have been converted; but the walls are in most places level with the ground, and sometimes not to be traced. It is, however, probable, by their general direction, that they included the great temple, and are three miles in circumference. The Arabs showed a tract which was near ten miles in circumference, the soil of which was

Mem. of French Academy for 1713.

† Hist. of the Acad. 1772.

raised

Palmyra raised a little above the level of the desert: this, they said, was the extent of the old city; and that by digging in any part of it ruins were discovered.

These ruins consist of temples, palaces, and porticoes of Grecian architecture; and lie scattered over an extent of several miles. They were accidentally discovered by some English travellers from Aleppo somewhat more than a century ago. By far the most remarkable of them is the Temple of the Sun, of which the ruins are spread over a square of 220 yards. It was encompassed with a stately wall, built of large square stones, and adorned with pilasters within and without, to the number of 62 on a side. Within the court are the remains of two rows of very noble marble pillars 37 feet high, with their capitals of most exquisite workmanship. Of these only 58 remain entire; but there must have been many more, for they appear to have gone round the whole court, and to have supported a double piazza. The walks on that side of the piazza which is opposite to the front of the castle seem to have been the most spacious and beautiful. At each end of this line are two niches for statues, with their pedestals, borders, supporters, and canopies, carved with the utmost propriety and elegance. The space within this inclosure, which is now filled with the dirty huts of the inhabitants, seems to have been an open court, in the middle of which stood the temple, encompassed with another row of pillars of a different order, and much taller, being 50 feet high; but of these 16 only remain. The whole space contained within these pillars is 59 yards in length, and near 28 in breadth. The temple is no more than 33 yards in length, and 13 or 14 in breadth. It points north and south; and exactly into the middle of the building, on the west side, is a most magnificent entry, on the remains of which are some vines and clusters of grapes, carved in the most bold and masterly imitation of nature that can be conceived. Just over the door are discerned a pair of wings, which extends its whole breadth: the body to which they belonged is totally destroyed; and it cannot now certainly be known whether it was that of an eagle or a cherub, several representations of both being visible on other fragments of the building. It is observed of the windows of this building, which were not large, that they were narrower at the top than below. The north end of the building is adorned with the most curious fret-work and bas-relief; and in the middle there is a dome or cupola about ten feet diameter, which appears to have been either hewn out of the rock, or moulded of some composition which by time is grown equally hard. North of this place is an obelisk, consisting of seven large stones, besides its capital, and the wreathed work about it. It is about 50 feet high; and, just above the pedestal, is 12 feet in circumference. There was probably a statue upon it, which the Turks, in their zeal against idolatry, destroyed. At about the distance of a quarter of a mile from this pillar, to the east and west, are two others, besides the fragment of a third; so that perhaps they were originally a continued row.

About 100 paces from the middle obelisk, straight forward, is a magnificent entry to a piazza, which is 40 feet broad, and more than half a mile in length, inclosed with two rows of marble pillars 26 feet high, and eight or nine feet in compass. Of these there still

remain 129; and, by a moderate computation, there could not originally have been less than 560. The upper end of the piazza was shut in by a row of pillars, standing somewhat closer than those on each side. A little to the left are the ruins of a stately building, which appears to have been a banqueting-house. It is built of better marble, and is finished with yet greater elegance, than the piazza. The pillars which supported it were of one entire stone, which is so strong, that one of them which is fallen down has received no injury. It measures 22 feet in length, and in compass 8 feet 9 inches. In the west side of the piazza are several apertures for gates into the court of the palace. Each of these were adorned with four porphyry pillars, not standing in a line with those of the wall, but placed by couples in the front of the gate facing the palace, two on each side. Two of these only remain entire, and but one standing in its place. They are 30 feet long and 9 in circumference. On the east side of the piazza stands a great number of marble pillars, some perfect, but the greater part mutilated. In one place 11 are ranged together in a square: the space which they inclose is paved with broad flat stones, but there are no remains of a roof. At a little distance are the remains of a small temple, which is also without a roof, and the walls are much defaced. Before the entry, which looks to the south, is a piazza supported by six pillars, two on each side of the door, and one at each end. The pedestals of those in front have been filled with inscriptions both in the Greek and Palmyrene languages, which are become totally illegible. Among these ruins are many sepulchres: they are ranged on each side of a hollow way, toward the north part of the city, and extend more than a mile. They are all square towers, four or five stories high. But though they are alike in form, yet they differ greatly in magnitude and splendour. The outside is of common stone, but the floors and partitions of each story are marble. There is a walk across the whole building, just in the middle; and the space on each hand is subdivided into six partitions by thick walls. The space between the partitions is wide enough to receive the largest corpse; and in these niches there are six or seven piled upon one another.

Many inscriptions have been found at Palmyra, which have occupied much of the attention of the learned; and if any thing certain could be derived from them, there is no doubt but they would tend very considerably to the elucidation of ancient history. See Barthelemy's *Reflections on the Palmyrene Alphabet*, published at Paris in 1754; and *An Explication of the Inscriptions at Palmyra* hitherto published, by John Swinton of Christ-church, Oxford. See also *Phil. Trans.* n^o 217. and 218.; the first volume of the *Ancient Universal History*; and, above all, consult the *Ruins of Palmyra, or Tadmor in the Desert*, published by Mr R. Wood, who, with M. Bouverie and Mr Dawkins, travelled thither in 1751. The result of their observations was published in 1753, in the form of an atlas. The ruins of this once mighty and celebrated city are represented in 57 copperplates, 16 by 12 inches, printed on imperial paper. They are admirably executed; the drawing is correct and masterly; and the graving highly finished: nor can they fail to give satisfaction to those who are connoisseurs in the art, or to those who

Palmyra, delight in the labours of antiquity. In a work like ours, however, it is impossible to give these views at length; we shall content ourselves then, after referring to this splendid work, with a view of the ruins of the Temple of the Sun, and of some other miscellaneous ruins.

Plate
CCCLXXII.

Palmyra was visited by Mr Bruce before his journey into Abyssinia; but, on account of the many publications concerning these celebrated ruins, he has declined saying much concerning them. He informs us, that, before he came in sight of the ruins, he ascended a hill of white gritty stone, in a very narrow winding road, such as is called a pass; but on getting up to the top his eyes were struck with the most stupendous sight which, he believes, ever mortal saw. The whole plain below, which is very extensive, was so covered with magnificent buildings, that they seemed to touch one another. All of them are finely proportioned, agreeably shaped, and composed of white stones, which at that distance appeared like marble. In taking a draught of these ruins, Mr Bruce divided the whole into six angular views, for which the situation of the place is very convenient. The columns are all uncovered to the very bases, the ground on which they are built being hard and solid. The views he took were upon large paper; some of the columns being represented a foot long, and some of the figures in the foreground of the Temple of the Sun (a magnificent building which stood at one end of the town) being near four inches. Before he left Palmyra he observed its latitude with a reflecting quadrant of Hadley; but as the instrument was out of order, he could not determine it exactly. In his opinion, however, $33^{\circ} 58'$ is not far distant from truth. From such observations as he could make on the longitude, he concluded it to be $37^{\circ} 9'$ east from Greenwich. Mr R. Wood makes the latitude 34° north.

From Palmyra Mr Bruce proceeded to Baalbec, distant about 130 miles, where he found ruins still more magnificent. The interior part of the great temple at this place, according to our author, surpasses any thing he had seen at Palmyra, or anywhere else. "All these views of Palmyra and Baalbec (says he) are now in the king's collection. They are the most magnificent offering, in their line, that ever was made by one subject to his sovereign."—In the neighbourhood of Palmyra are some salt-marshes; and to the adjacent country a trade is carried on in kelp from Tripoli in Syria. There are two Arab tribes, almost equally powerful; one of them, called Annecy, remarkable for the finest horses in the world. They possess the country to the south-west, at the back of Libanus, about Bozrah, and southward towards the borders of Arabia Petraea and Mount Horeb. The other tribe, named Mowalli, inhabit the plains east from Damascus, to the Euphrates, and north to near Aleppo. They are fewer in number than the Annecy, but much better soldiers; and their breed of horses not greatly inferior.

Respecting the latitude and longitude there are still various opinions: that which appears to be nearest the truth is E. Long. $38. 50.$ N. Lat. $33. 20.$ It stands about 50 leagues south-east of Aleppo, as much from Damascus, and 20 leagues west of the Euphrates.

PALPABLE, something perceivable by the senses, particularly that of feeling.

PALPITATION of the Heart. See MEDICINE, Palpitation, n^o 97. 290.

PALSGRAVE (John), a learned writer, who flourished in the reigns of Henry VII. and Henry VIII. He received his grammatical learning at London, his native place. He studied logic and philosophy at Cambridge, at which university he resided till he became bachelor of arts; after which he went to Paris, where he spent several years in the study of philosophy and other parts of learning, took the degree of master of arts, and acquired such excellence in the French tongue, that in 1514, when a treaty of marriage was negociated between Louis XII. king of France, and the princess Mary, sister of Henry VIII. of England, Mr Palsgrave was appointed to be her tutor in that language. But Louis XII. dying soon after his marriage, Palsgrave attended his fair pupil back to England, where he taught the French language to many of the young nobility, obtained good preferment in the church, and was appointed by the king one of his chaplains in ordinary. In 1531 he settled at Oxford for some time, and the next year was incorporated master of arts there, as he had before been in Paris, and a few days after was admitted to the degree of bachelor of divinity. At this time he was much esteemed for his learning; and, what is very remarkable, though an Englishman, he was the first who ever reduced the French tongue to grammatical rules, or that had attempted to fix it to any kind of standard. This he undertook, and executed with great ingenuity and considerable success, in a large work which he published in that language at London, intitled *L'Eclaircissement de la Langue Françoise*, in three books in thick folio, 1530, to which he has prefixed a large English introduction; so that the French nation seems to stand originally indebted to England for that universality which their language at present possesses, and on which they so much pride themselves. He translated into English a Latin comedy called *Acolastus*, written by one Will. Fullonius, an author then living at Hagen in Holland.

At what time Mr Palsgrave was born, or how long he lived, it is not easy to say; yet, from the concurrence of several facts, he appears to have been much less than 60 years of age at the time of his publishing the above-mentioned translation, which was in the year 1540.

PALSY. See MEDICINE, n^o 92. 265, &c. and 269.

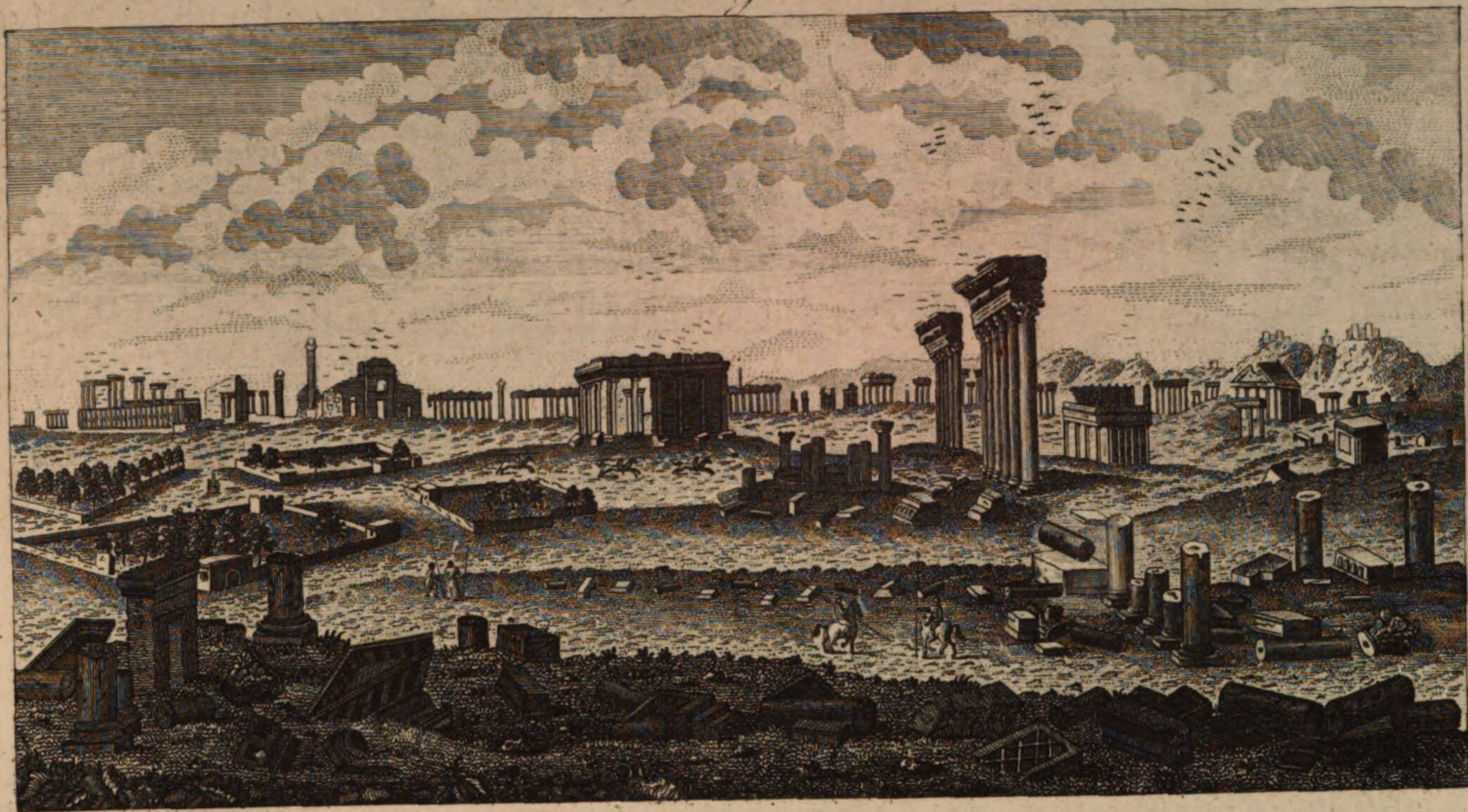
PALUDAMENTUM, in Roman antiquity, a habit that differed but little from the chlamys, except that this last belonged chiefly to the lower class of people. It was worn by the officers and principal men amongst the Romans in time of war, who are therefore called *Paludati*; which distinguished them from the common soldiers, who, because they wore the sagum, were called the *Sagati*. The paludamentum came down only to the navel, was open on the sides, had short sleeves resembling angels wings, and was generally white or red. It is sometimes used to signify the common soldier's coat.

PALUS MEOTIS, the ancient name of a gulph between Europe and Asia, to the north of the Black Sea, now called the *sea of Zabach*, or *Asoph*.

PALY, or PALE, in heraldry, is when the shield is divided

*Ruins of the Ancient City of
Palmyra.*

Plate CCCLXXII.



The Remains of the Great Temple of the Sun in Palmyra from the West.



A. Bell Pin. M. & S. sculptor fecit.

Paly
||
Pan.

divided into four or more equal parts, by perpendicular lines falling from the top to the bottom.

PALY Bende, is when the escutcheon is divided by perpendicular lines, which is *paly*; and also by diagonals, which is called *bendy*.

PAMBOUK, the Turkish name of the ruined city of Hierapolis. See HIERAPOLIS.

PAMPELUNA, the capital of the kingdom of Navarre in Spain, with a very strong citadel and rich bishopric. It is handsome and populous, and carries on a great trade, seated in a very fertile plain, in E. Long. 1. 25. N. Lat. 42. 42.

PAMPELUNA, a town of New Granada in South America, famous for its gold mines and numerous flocks of sheep. W. Long. 68. 30. N. Lat. 6. 30.

PAMPHILUS, a celebrated painter of Macedonia, in the age of Philip. He was founder of the school for painting at Sicyon; and he made a law which was observed not only in Sicyon but all over Greece, that none but the children of noble and dignified persons should be permitted to learn painting. Apelles was one of his pupils.

PAMPHYLIA, the ancient name of a country of Natolia, in Asia, now called *Carimania* and *Cay-bay*, between Lycia and Cilicia, on the south coast, to the north of the Mediterranean sea.

PAN, the god of shepherds, hunters, and all country exercises. Such he is described by the Greek and Roman poets; but he bore a higher character among the earliest Greeks, as well as among the Egyptians; from whom his worship was borrowed by that people. In Egypt he was known by the name of *Mendes*, which, according to Jablonski*, signifies fecundity.

Hence his symbol was a living he-goat, the most salacious of all animals: "Hircum Mendesium colunt Ægyptii, eo quod virtuti prolificæ ac genitivæ, consecratus est.—Nam animal hoc coitus valde cupidum est." His principal temple was a magnificent building in a city of lower Egypt, called after his name. It is well known (see POLYTHEISM) that from dedicating certain animals to certain gods, the Egyptians proceeded to consider the animals themselves as actuated by the divinities to whom they were sacred. Hence the origin of brute worship. In the temple of Mendes was kept a *he-goat*, to whom sacrifices of a very monstrous kind were offered. Herodotus, speaking of the præfecture of *Mendes*, says†,

Εγενετο δὲ ἐν τῷ νομῷ τούτῳ ἐπ' ἐμοῦ τούτῳ τὸ τερας γυναικὶ τραγὸς ἐμίσγετο ἀναπαύδων. Τούτῳ ἰσ' ἐπιδειξὶν ἀνθρώπων ἀπικέτο. Our readers, learned and unlearned, will forgive us for not translating this passage, which contains, however, nothing that is not confirmed by the testimony of other writers; particularly of Plutarch, and Pindar as he is quoted by Strabo. The most wonderful circumstance of this monstrous sacrifice is, that it was made publicly in the presence of a great concourse of men! But to what divinity was it made? To a mere goat, or to some superior principle animating the goat? Doubtless to the latter; for it is said that the fair worshippers were of the first rank, and of unspotted fame; and that if they had borne a different character, the deity would not have accepted of their devotions.

The deity whom the Egyptians adored by the name of *Mendes*, was no other than the Soul of the Uni-

verse; for he was their most ancient god: and we are told by Plutarch‡, "That they took the first God and the Universe for one and the same thing." Hence his name Παν among the Greeks: not that either the Greeks or their masters in theology worshipped, as the first god, mere brute matter, but that spirit which they conceived to be coeternal with matter, and to animate all things, making them *one*. Thus Orpheus, who imported the Egyptian doctrine into Greece, declares that all things are one: and after him Parmenidas, and other philosophers, taught, ἐιναι τὸ παν, that "one is the universe;" and that "the universe is immoveable." That the ancient Grecian *Pan*, or the Egyptian *Mendes*, was not the corporeal world, as senseless and inanimate, but the whole system of things, animated and eternal, appears further from the following testimony of Macrobius. "Hunc deum Arcades colunt, appellantes τὸν τῆς οὐλῆς κυρίον, non sylvarum dominum, sed universæ substantiæ materialis dominatorem;—The Arcadians worship this god, calling him the lord of *HYLE*; i. e. not the lord of the woods, but the lord of all material substance."

In the same manner, Pharnutus|| describes the *Pan* of the other Greeks, not as the mere corporeal world, but as the intellectual principle actuating it and presiding over it: and he adds, that "Pan was feigned to be lascivious, because of the multitude of *spermatic reasons* in the world, and the continual mixtures and generation of things."

The Egyptians, as we learn from Jablonski, had nearly the same notion with the Greeks of the spirit which they worshipped as the Soul of the Universe; only they gave to it both sexes. As the maker, governor, and bountiful father of universal nature, they considered it as a *male*, whose symbol was the *he-goat* of Mendes; and as a *female* it was adored by the name of *Isis*, to whom the *she-goat* was consecrated, though not held in such veneration as the male. From this view of the Egyptian creed, the sacrifice which we have mentioned appears no longer unaccountable. It was made to a god, believed to be the universal source of fecundity, and to whom, from the well-known character of the animal, whom he was supposed to actuate, they had reason to believe it would be most acceptable.

The Greeks never worshipped their *Pan* by the emblem of a living goat; but they painted him with the lower parts of a goat, for a reason which shall be afterwards mentioned. How he came to degenerate among that people, from one of the *Dii majorum gentium*, or rather from the first principle of all things, to the rank of a *dæmon* or demi-god, we cannot pretend to say: but that such was his fate, is certain; for under this last character mention is made both of his birth and his death.

Whose son he was, is not agreed among them. Homer makes him the son of Mercury, and says he was called *Pan* from παν, *omne*, because he charmed all the gods with his flute; others say that he was the son of Demogorgon, and first invented the organ, of seven unequal reeds, joined together in a particular manner: Having on a time fought with Cupid, that god in spite made him fall in love with the coy nymph Syrix, who, ying from him to the banks of Eadon, a river of Arcadia, at the instant prayers of the Nymphs was turned into

Pan.

De Iside
et Osir.

Inter

Thom. Gall.

Scriptores

Mythol.

et.

* Pantheon
Egyptiorum.† Lib. ii.
h. 26.

Pan.

a reed, as her name in Greek signifies, which the god grasping instead of her, made a pipe of it, and for his music was adored by the Arcadians. The most common opinion was, that he was the son of Mercury and Penelope. But *Nat. Comes*, out of *Duris Samius*, makes his birth scandalous, by saying he was called *παις*, because begot by all Penelope's suitors. He was painted half-man half-goat, having large goats horns, a chaplet of pine on his red face, a pleasant laughter, with the feet and tail of a goat; a motely skin covering his body, with a crooked stick in one hand and his pipe in the other. See him nicely described by *Sil. Ital.* 13. 326. & *seq.* a sight enough to fright women and children, yea, armed men too; for when Brennus the Gaul was about to pillage the temple of Apollo at Delphos, he by night struck such a terror into his army, that he quitted his sacrilegious design: hence *Panici terrores*. Yet, as homely as he was, he pleased the goddesses Luna, turning himself easily into a white ram, Virgil, *Georg.* III. 392. & *deinceps*; and the nymph Dryope also, almost putting off his divinity, and turning shepherd for her sake. Neither was he displeasing to other nymphs, who are generally made dancing round about him to hear the charms of his pipe. The usual offerings made him were milk and honey, in shepherd's wooden bowls; also they sacrificed to him a dog, the wolf's enemy; whence his usual epithet is *λυκαίος*; and whence also his priests were called *Luperci*.

His festival was celebrated on February 15th by the Romans, brought into Italy by Evander the Arcadian, and revived afterwards by Romulus, in memory of his preserver. He was also called by the Romans *Inuus*, ab ineundo. *Vid. Liv. l. 5. Macrob. Sat. l. 22. and Serv. in Virg. Æn. VI. 775.* The ancients, by giving so many adjuncts and attributes to this idol as we have observed above, seem to have designed him for the symbol of the universe; his upper parts being human, because the upper part of the world is fair, beautiful, smiling, like his face; his horns symbolize the rays of the sun and of the moon; his red face, the splendor of the sky; the spotted skin where-with he is clothed, the stars which bespangle the firmament; the roughness of his lower parts, beasts and vegetables; his goat's feet, the solidity of the earth; his pipe, compact of seven reeds, the seven planets, which they say make the harmony of the spheres: his crook, bending round at the top, the years circling in one another. *Serv. Interpr.*

Having said so much of Pan, both as a self-existent god and as a generated daemon, we shall conclude the article with some observations on Plutarch's account of the prodigy which happened at his death; for in the Pagan creed, daemons were not all believed immortal.—“In the reign of Tiberius (says our author*), certain persons on a voyage from Asia to Italy, and sailing towards the evening by the Echinades, were there becalmed, and heard a loud voice from the shore calling on one Thamus an Egyptian pilot whom they had on board. Thamus, as may be supposed, listened with attention; and the voice, after repeating his name thrice, commanded him when he came to the Pelodes, to declare that the Great Pan was dead. The man, with the advice of his companions, resolved, that if they should have a quick gale

off the Pelodes, he would pass by in silence; but that if they should be becalmed, he would perform what the voice had commanded. Adhering to this resolution, they soon arrived off the destined islands, and were immediately becalmed, there being neither breath of wind nor agitation of water. Upon this Thamus looking from the hinder part of the ship towards the land, pronounced with a loud voice *ὁ μέγας Παν τεθνήκε*, *The Great Pan is dead!* and was instantly answered from the shore by numberless howlings and lamentations.

This story, which has so much the air of imposture, has not only been admitted as truth by men of the first eminence for learning and acuteness, but has been applied to our Saviour, whose death (says Cudworth) the daemons mourned, not from love, but from a presage that it would put a period to the tyranny and domination which they had so long exercised over the souls and bodies of men. In support of this opinion, he quotes several passages of Scripture, such as, “Now is the prince of this world judged;” and, “Having spoiled principalities and powers (by his death upon the cross), he triumphed over them in it.” He affirms likewise, that “Pan being taken for that reason or understanding by which all things were made, and by which they are all governed, or for that divine wisdom which diffuseth itself through all things, is a name which might very well signify *God manifested in the flesh*.”

The authority of Cudworth is great; but a groundless opinion has seldom been propped by weaker reasoning than he makes use of on this occasion. Plutarch indeed says, and seems to believe, that this prodigy fell out during the reign of Tiberius; but as he mentions not the year of that reign, there is no evidence that it was at the crucifixion of our Saviour. The daemons who inhabited the Echinades knew what had been transacted at Jerusalem far distant from their islands; they knew the name of the pilot of a strange ship; they knew that the mariners of that ship had resolved to disobey their command, unless becalmed off the Pelodes; they had power over both the winds and waves at the Pelodes, and exerted that power to enforce obedience to their command; and yet these all-knowing and powerful beings were under the necessity of calling in the aid of a man to deliver a message to their companions, inhabiting a place to which the very same story assures us that their own power and knowledge reached. Should it be said that the daemons were compelled by divine power thus publicly to make known to man Christ's triumph over the kingdom of darkness, we beg leave to ask why they were not likewise compelled to give him another name, since it is certain, that at the æra of Tiberius, and long before, illiterate Pagans, such as common seamen must be supposed to have been, knew no other Pan than the fabled son of Penelope and Mercury?—Indeed the other Pan, taken for that reason or understanding by which all things were made, could not possibly be the being here meant; for, erroneous as the Pagan system was, there is nothing in it so completely absurd as the death of the soul of the universe, the maker of all things; nor do we believe that any Pagan ever existed, who dreamed that such a death was possible.

What then, it will be asked, are we to understand by

* *Lib. de
Oracul.
Defect.*

Pan
||
Panama.

* Tacit.
Annal.
lib. ii.
cap. 72. 83.
et lib. iii.
cap. 1.

† Cudworth's
Intel. Syst.
cap. 4.
Note 132.

by this story? Plutarch was eminent for knowledge and integrity, and he relates it without expressing a doubt of its truth. He does so; but many a man of worth has been credulous; and though that was not his character, this *prodigy* may be accounted for by natural means. Germanicus was believed to have been poisoned, at least with the knowledge, if not by the command, of Tiberius; and there was nothing which the Romans so deeply deplored as the untimely death of that accomplished prince*. They fancied that his body was animated, not by a human soul, but by a superior dæmon; and they decreed to him statues, religious ceremonies, and even sacrifices. His widow was highly honoured, as having been nearly related to a divinity, and his children were adored as demi-gods. These facts being admitted, nothing appears to us more probable than the opinion of the learned Mosheim †, who thinks that some shrewd statesman, in order to excite the popular fury against Tiberius to the highest pitch, invented this story, and bribed foreign mariners to spread it among the people, who would naturally believe, that by the great Pan was meant their favourite Germanicus. This hypothesis is at least countenanced by what Plutarch tells us of the anxiety of the emperor to discover what personage could be meant by the Pan whose death was announced to the seamen: he consulted the learned men of Rome, who, in order to restore peace to the city, declared that they understood it of none other than the son of Penelope and Mercury.

PANACEA, among physicians, denotes an universal medicine, or a remedy for all diseases; a thing impossible to be obtained.

PANADA, a diet consisting of bread boiled in water to the consistence of pulp, and sweetened with a little sugar.

PANAMA, the capital city of the province of Darien in South America, where the treasures of gold and silver, and the other rich merchandises of Peru, are lodged in magazines till they are sent to Europe. W. Long. 82. 15. N. Lat. 8. 57.

When Guzman first touched at this place in 1514, it consisted entirely of fishermen's huts. Orius d'Avila settled a colony here in a few years after, and in 1521 it was constituted a city by the emperor Charles V. with the proper privileges. In 1670 it was sacked and burnt by John Morgan, an English adventurer, who had the preceding year taken Porto Bello. This misfortune induced the inhabitants to remove the city to its present situation, distant about a league from the place where it stood before. For the greater security, the new city was inclosed by a free-stone wall, and the houses were built of stone and brick. Since that time several bastions have been added, and now there is always a complete garrison maintained, and the walls are mounted with large cannon. But all these precautions could not save this city from another misfortune; it was entirely consumed by fire in the year 1737. After this accident it was again rebuilt, in the manner as it now stands, with neat elegant houses, but not magnificent. The inhabitants are rather independent in their fortunes than rich; there are few of them opulent, and scarce any in a state of poverty. As to the harbour, it is convenient, and well secured against storms by a number of

surrounding islands, and is capable of containing the largest fleets. Here the royal audience is seated, at which the governor of Panama resides; for which reason this city is commonly deemed the capital of the province.

This place, a little while after it was founded, became the capital of the kingdom of Terra Firma. Some hopes were at first entertained from the three provinces of Panama, Darien, and Veragua, which composed it; but this prosperity vanished instantaneously. The savages of Darien recovered their independence; and the mines of the two other provinces were found to be neither sufficiently abundant, nor of an alloy good enough to make it worth while to work them. Five or six small boroughs, in which are seen some Europeans quite naked, and a very small number of Indians who have come to reside there, form the whole of this state, which the Spaniards are not ashamed of honouring with the great name of kingdom. It is in general barren and unwholesome, and contributes nothing to trade but pearls.

The pearl fishery is carried on in the islands of the gulph. The greatest part of the inhabitants employ such of their negroes in it as are good swimmers. These slaves plunge and replunge in the sea in search of pearls, till this exercise has exhausted their strength or their spirits.

Every negro is obliged to deliver a certain number of oysters. Those in which there are no pearls, or in which the pearl is not entirely formed, are not reckoned. What he is able to find beyond the stipulated obligation, is considered as his indisputable property: he may sell it to whom he pleases; but commonly he cedes it to his master at a moderate price.

Sea monsters, which abound more about the islands where pearls are found than on the neighbouring coasts, render this fishing dangerous. Some of these devour the divers in an instant. The manta fish, which derives its name from its figure, surrounds them, rolls them under its body, and suffocates them. In order to defend themselves against such enemies, every diver is armed with a poniard: the moment he perceives any of these voracious fish, he attacks them with precaution, wounds them, and drives them away. Notwithstanding this, there are always some fishermen destroyed, and a great number crippled.

The pearls of Panama are commonly of a very fine water. Some of them are even remarkable for their size and figure: these were formerly sold in Europe. Since art has imitated them, and the passion for diamonds has entirely superseded or prodigiously diminished the use of them, they have found a new mart more advantageous than the first. They are carried to Peru, where they are in great estimation.

This branch of trade has, however, infinitely less contributed to give reputation to Panama, than the advantage which it hath long enjoyed of being the mart of all the productions of the country of the Incas that are destined for the old world. These riches, which are brought hither by a small fleet, were carried, some on mules, others by the river Chagre, to Porto Bello, that is situated on the northern coast of the isthmus which separates the two seas. See DARIEN.

PANARI, one of the Lipari islands, lying in the Tuscan Sea. It is only five miles in circumference, and

Panama,
Panari.

Panaro,
Panathe-
næa.

and the soil is barren. E. Long. 15. O. N. Lat. 39. O.

PANARO, a river of Italy, which rises in the Apennines, crosses the valley of Frignano, and running on the confines of the Modenese and Bolognese, waters Fenal, and falls into the Po at Bondeno, ten miles above Ferrara.

PANATHENÆA, *παναθηναία*, in Grecian antiquity, an ancient Athenian festival, in honour of Minerva the protectress of Athens, and called *Athenæa*. Harpocration and Suidas refer the institution of this festival to Erichthonius IV. king of Athens, who lived before Theseus. Theodoret alone says the feast was established by Orpheus. Be this as it will, till Theseus it was never a particular feast of the city of Athens, and was called simply *Athenæa*: but that prince, uniting all the people of Attica into one republic, they afterwards all assisted at the feast; whence the name *Panathenæa*, i. e. the feast of all Attica. In effect all Attica was present; and each people sent a bullock for the sacrifices, and for the entertainment of the vast multitude of people assembled.

There were two festivals under this denomination, the greater and the lesser. The greater panathenæa were exhibited every five years; the less every three, or, according to some writers, annually. Though the celebration of neither, at first, employed more than one day; yet in after-times they were protracted for the space of many days, and solemnized with greater preparations and magnificence than at their first institution.

The ceremonies were the same in the great and the little panathenæa; excepting for a banner, wherein the actions of the goddess were represented in embroidery, performed by maids, with the names of those who had distinguished themselves in the service of the republic; which was only borne at the greater.

Prizes were established there for three different kinds of combat: the first consisted of foot and horse races; the second, of athletic exercises; and the third, of poetical and musical contests. These last are said to have been instituted by Pericles. Singers of the first class, accompanied by performers on the flute and cithara, exercised their talents here, upon subjects prescribed by the directors of these exhibitions.

The following is the order observed in this festival, according to M. Barthlemi, who quotes numerous authorities on the occasion: "The inhabitants of the different towns of Attica thronged to the capital, leading with them a great number of victims destined for sacrifices to the goddess. In the first morning were the horse-races, in which the sons of the first citizens of Athens contended for the honour of the victory. In the stadium were other young men struggling for the prize at wrestling, and different exercises of the body; and in the Odæum were several musicians engaged in gentler and less perilous contests. Some executed pieces on the flute or cithara; others sang, and accompanied their voices with one of these instruments. The subject proposed to them was the eulogium of Harmodius, Aristogiton, and Thrasylulus, who had rescued the republic from the yoke of the tyrants by which it was oppressed: for, among the Athenians, public institutions are so many monuments for the citizens who have served the state, and lessons for those who are

Nº 258.

called upon to render it service. A crown of olive, and a vessel filled with oil, were the prizes bestowed upon the victors. Crowns were afterwards conferred on individuals, who appeared to the people to have merited that mark of honour by their zeal in the service of their country.

"At the Ceramicus passed a procession, formed without the walls, and which began at that place to file off. It was composed of different classes of citizens crowned with chaplets of flowers, and remarkable for their personal beauty. Among the number were old men of a majestic and venerable appearance, bearing branches of olive; middle-aged men, who, armed with lances and with bucklers, seemed only to respire war; youth from eighteen to twenty, who sang hymns in honour of the goddess; beautiful boys, clad in a simple tunic, adorned only with their native graces; and, lastly, girls, who were of the first families in Athens, and whose features, shape, and deportment, attracted every eye. With their hands they held baskets on their heads, which, under a rich veil, contained sacred utensils, cakes, and every thing necessary for the sacrifices. Female attendants, who followed them, with one hand held over them an umbrella, and carried in the other a folding chair. This is a species of servitude imposed on the daughters of all foreigners settled at Athens: a servitude they share in common with their fathers and mothers, who likewise carried on their shoulders vessels filled with water and honey, for the purpose of libations. They were followed by eight musicians; four of whom played on the flute and four on the lyre. After them came rhapsodists singing the poems of Homer; and dancers armed at all points, who, attacking each other at intervals, represented, to the sound of the flute, the battle of Minerva with the Titans. Next came a ship that appeared to glide over the ground by the power of the wind, and the efforts of a great number of rowers, but which really was put in motion by concealed machinery. The vessel had a sail of light stuff, on which young girls had represented in embroidery the victory of Minerva over the Titans. On it also they had depicted, by order of the government, some heroes whose illustrious deeds had merited to be celebrated with those of the gods. This procession marched on with solemn steps, under the direction of several magistrates; and traversed the most frequented quarter of the city amidst a crowd of spectators, most of whom were placed on scaffolds erected for the occasion. When it had reached the temple of the Pythian Apollo, the sail of the ship was taken down and carried to the citadel, where it was deposited in the temple of Minerva.

"In the evening, at the academy, was the torch race. The course is only six or seven stadia in length. It extends from the altar of Prometheus, which is at the gate of this garden, to the walls of the city. Several young men are stationed in this interval at equal distances. When the shouts of the multitude have given the signal, the first lights his flambeau at the altar, and, running with it, hands it to the second, who transmits it in the same manner to the third, and so successively. He who suffers it to be extinguished can no more enter the lists; and they who slacken their pace are exposed to the raileries, and even blows, of the

Panathe-
næa.

Anacharxis,
vol. ii.
p. 434.

Panax. the populace. To gain the prize, it is necessary to have passed through the different stations with success. This trial of skill was frequently repeated, and is diversified according to the nature of the festivals.

"The candidates who had been crowned at the different exercises invited their friends to supper. Sumptuous repasts were given in the prytaneum and other public places, which lasted till the following day. The people among whom the immolated victims were distributed spread tables on every side, and gave a loose to their lively and tumultuous mirth."

PANAX, GINSENG: A genus of the diœcia order, belonging to the polygamia class of plants. There are five species of this plant. 1. *Quinquifolium*. 2. *Trifolium*. 3. *Fruticosum*. 4. *Arborea*. 5. *Spinosa*.

Plate
CCCLXXIII.

The first and second are natives of North America. The *quinquifolium* is generally believed to be the same with the Tartarian ginseng; the figures and descriptions of that plant which have been sent to Europe by the missionaries agreeing perfectly with the American plant. This hath a jointed, fleshy, and taper root, as large as a man's finger, frequently divided into two smaller fibres downwards. The stalk rises near a foot and an half high, and is naked at the top, where it generally divides into three smaller foot-stalks, each sustaining a leaf composed of five spear-shaped lobes, sawed on their edges: they are of a pale green, and a little hairy. The flowers grow on a slender foot-stalk, just at the division of the foot-stalks which sustain the leaves, and are formed into a small umbel at the top: they are of an herbaceous yellow colour, composed of small yellow petals, which are recurved. Woodville* says they are white; that they are produced in a roundish terminal umbel, and are hermaphrodite or male on separate plants. The former (see the Plate) stand in close simple umbels: the involucre consists of several small, tapering, pointed, permanent leaves; the proper calyx is tubular, and divided at the rim into five small teeth: the corolla consists of five petals, which are small, oval, equal, and reflexed: the filaments are five, short, and furnished with simple antheræ: the germen is roundish, placed below the corolla, and supports two short erect styles, crowned by simple stigmata: the fruit is an umbilicated two-celled berry, each containing a single irregularly heart-shaped seed. The flowers appear in the beginning of June; and are succeeded by compressed, heart-shaped berries, which are first green, but afterwards turn red; inclosing two hard, compressed, heart-shaped seeds, which ripen in the beginning of August. The second sort grows naturally in the same countries: but Mr Miller never saw more than one plant, which was sent to him from Maryland, and did not live beyond the first year; being planted in a dry soil, in a very dry season. The stalk was single, and did not rise more than five inches in height, dividing into three foot-stalks, each sustaining a trifoliate leaf, whose lobes were longer, narrower, and deeper indented on their edges, than the former.

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Panax. The flower-stalk rose from the divisions of the foot-stalk of the leaves; but before the flowers opened, the plant decayed.

Ginseng was formerly supposed to grow only in Chinese Tartary, affecting mountainous situations, shaded by close woods: but it has now been long known that this plant is also a native of North America, whence M. Sarrafin transmitted specimens of it to Paris in the year 1704 (A); and the ginseng since discovered in Canada, Pennsylvania, and Virginia, by Lafiteau, Kalm, Bartram, and others, has been found to correspond exactly with the Tartarian species; and its roots are now regularly purchased by the Chinese, who consider them to be the same as those of eastern growth, which are known to undergo a certain preparation, whereby they assume an appearance somewhat different. For it is said, that in China the roots are washed and soaked in a decoction of rice or millet-seed, and afterwards exposed to the steam of the liquor, by which they acquire a greater firmness and clearness than in their natural state (B). The plant was first introduced into England in 1740 by that industrious naturalist Peter Collinson. They thrive in those places where it hath a light soil and shady situation, and will produce flowers and seeds; but the latter, though in appearance ripe and perfect, will not produce any new plants, as Mr Miller says he has repeatedly made the experiment, and waited for them three years without disturbing the ground. There are many good specimens in the Royal Botanic Garden at Kew.

The dried root of ginseng, as imported here, is scarcely the thickness of the little finger, about three or four inches long, frequently forked, transversely wrinkled, of a horny texture, and both internally and externally of a yellowish white colour. On the top are commonly one or more little knots, which are the remains of the stalks of the preceding years, and from the number of which the age of the root is judged of. "To the taste it discovers a mucilaginous sweetness, approaching to that of liquorice, accompanied with some degree of bitterishness, and a slight aromatic warmth, with little or no smell. It is far sweeter, and of a more grateful smell, than the roots of fennel, to which it has by some been supposed similar; and differs likewise remarkably from those roots in the nature and pharmaceutic properties of its active principles, the sweet matter of the ginseng being preserved entire in the watery as well as the spirituous extract, whereas that of fennel roots is destroyed or dissipated in the inspissation of the watery tincture. The slight aromatic impregnation of the ginseng is likewise in good measure retained in the watery extract, and perfectly in the spirituous *."

Properties. The Chinese ascribe extraordinary virtues to the root of ginseng; and have long considered it as a sovereign remedy in almost all diseases to which they are liable, having no confidence in any medicine unless in combination with it. It is observed by Jar-

* Lewis,
Mat. Med.
p. 325.

4 S

toux,

(A) Sarrafin was correspondent of the Royal Academy of Sciences, in the history of which his account was published in 1718.

(B) The Chinese value these roots in some measure according to their figure, esteeming those very highly which are regularly forked, or have a fancied resemblance to the human form.

Panax,
Panay.

toux, that the most eminent physicians in China have written volumes on the medicinal powers of this plant; asserting, that it gives immediate relief in extreme fatigue either of body or mind; that it dissolves pituitous humours, and renders respiration easy; strengthens the stomach; promotes appetite; stops vomitings; removes hysterical, hypochondriacal, and all nervous affections; and gives a vigorous tone of body even in extreme old age. These, and many other effects of this root equally improbable and extravagant, are related by various authors; and Jartoux was so much biased by this eastern prejudice in favour of ginseng, that he seems to have given them full credit, and confirms them in some measure from his own experience. He says, "Nobody can imagine that the Chinese and Tartars would set so high a value upon this root, if it did not constantly produce a good effect."—"I observed the state of my pulse, and then took half of a root raw: in an hour after I found my pulse much fuller and quicker; I had an appetite, and found myself much more vigorous, and could bear labour much better and easier than before. But I did not rely on this trial alone, imagining that this alteration might proceed from the rest we had that day: but four days after, finding myself so fatigued and weary that I could scarcely sit on horseback, a Mandarin who was in company with us perceiving it, gave me one of these roots: I took half of it immediately, and an hour after I was not the least sensible of any weariness. I have often made use of it since, and always with the same success. I have observed also, that the green leaves, and especially the fibrous parts of them, chewed, would produce nearly the same effect*." We know, however, of no proofs of the efficacy of ginseng in Europe; and from its sensible qualities we judge it to possess very little power as a medicine. Dr Cullen says, "We are told that the Chinese consider ginseng as a powerful aphrodisiac; but I have long neglected the authority of popular opinions, and this is one instance that has confirmed my judgment. I have known a gentleman, a little advanced in life, who chewed a quantity of this root every day for several years, but who acknowledged he never found his faculties in this way improved by it†."

* Phil.
Transf.
vol. xxviii.
p. 239.

† Mat.
Med. vol. ii.
p. 161.

A dram of the ginseng root may be sliced and boiled in a quarter of a pint of water to about two ounces; then a little sugar being added, it may be drank as soon as it is cool enough. The dose must be repeated morning and evening; but the second dose may be prepared from the same portion of root which was used at first, for it may always be twice boiled.

Modern Un.
Hist.
vol. viii.

PANAY, an island of Asia, and one of the Philippines, lying between those of Paraguay and Negro. It is 250 miles in circumference, and is the most populous and fertile of them all. It is watered by a great number of rivers and brooks, and produces a great quantity of rice. Its shape is triangular. The names of its principal capes are Potol, Naso, and Bulacabi. The coast from Bulacabi to Potol lies east and west; from Potol to Naso, north and south; from Bulacabi to Iloilo, another cape, less than the great ones, is also north and south; from Iloilo to Cape Naso, east and west. The middle of the island is in the latitude of ten degrees. On the north side, almost in the middle between the two capes of Potol and Bu-

lacabi, the famous river Panay falls into the sea; and the mouth of the harbour is covered by a small island called *Lutaya*, in which port the Spaniards had a safe retreat before they discovered and conquered Manila and Cavite. The fertility of Panay is caused by the many rivers that water it, for there is no travelling a league without meeting a river; but more particularly by the Panay, which gives its name to the island, and runs a course of 40 leagues. The island, for the better administering of justice, is divided into jurisdictions: the first, called *Panay*, contains all that lies between Cape Potol and Bulacabi; the rest of the island is subject to the alcaide of Otton, who resides at Iloilo, a point of land running out into the sea, on the south side, between the two rivers of Tig Bavan and Jaro, and, with the island Imaras, forms a strait not above half a league over, or rather an open harbour. On this point the governor Don Gonzalo Ronquillo caused a fort to be built in the year 1681. The island contains about 16,360 tributary Indians, partly belonging to the king and partly to particular encomienderos or lords; but they all pay in rice, the island producing 100,000 bushels, Spanish measure, and but little other grain. The inhabitants are stout, lusty, and industrious farmers, and expert huntsmen, the country being full of wild boars and deer. The women make cloth of several colours. There are in the island 14 parishes, belonging to the fathers of the order of St Augustin, three benefices of secular priests, and formerly one college of the society of Jesus, where they administer the sacraments to the garrison of Iloilo. Besides the tributary Indians, there are here those blacks the Spaniards call *Negrillos*, who were the first inhabitants of the island, and afterwards driven into the thick woods by the Bisayas who conquered it. Their hair is not so stiff curled, nor are they so stout and strong, as the Guinea blacks. They live in the most uncouth parts of the mountains with their wives and children, all naked like beasts. They are so swift that they often overtake wild boars and deer. They stay about the dead beast as long as it lasts; for they have no other subsistence but what they acquire with their bow and arrows. They fly from the Spaniards, not so much through hatred as from fear. Among the islands about Panay lies Imaras, opposite to Iloilo, and about a quarter of a league distant. It is long and low, ten leagues in compass and three in length, the soil fertile, abounding in sarsaparilla, and exceeding good water. On the mountains there are wild boars, deer, and good timber. It has also in it the port of St Anne, three leagues from Iloilo.

PANCARPUS, in Roman antiquity, a kind of show which the Roman emperors frequently exhibited to the people. The word is formed from the Greek *παν* all, and *καρπος* fruit. Whence the name was also given by the Athenians to a sacrifice wherein all kinds of fruits were offered. In this spectacle, the Circus being all set over with large trees, represented a forest, into which the beasts being let from the dens underground, the people, at a sign given by the emperor, pursued, shot, and killed all they could lay hold of, which they afterwards carried away, to regale upon at home. The beasts usually given on these occasions were boars, deers, oxen, and sheep.

Casaubon, Cr jas, Pithou, &c. make the pancarpus and

Panay,
Pancarpus.

Pancicollus and *sylva* the same thing; *Salmasius* will have them different. The *sylva*, according to him, was such a diversion as that above described; but the *pancarpus* a combat, wherein robust people, hired for that purpose, fought with wild beasts; which opinion he confirms from *Cassian*, *Justinian*, *Clandian*, *Firmicus*, *Manilius*, and *Cassiodorus*.

PANCIROLLUS (*Guy*), a famous lawyer of *Rhegium*, was a person of an excellent genius, which he cultivated with the greatest care in the principal universities of Italy; and was afterwards ordinary professor of law at *Padua*. *Philibert Emanuel*, duke of *Savoy*, invited him to his university in 1571, where he composed his ingenious treatise *De rebus inventis et deperditis*. But the air of *Turin* not agreeing with him, he there lost an eye; and, for fear of losing the other, returned to *Padua*, where he died in 1591.

PANCRAS, a town of England, in the county of *Middlesex*, on the north-west side of *London*, in the highway to *Kentish-town*. Its church is one of the prebends of *St Paul's*, of which cathedral some call it the mother, it being thought to be as old as that church even in the reign of *Queen Elizabeth*, when it is represented as weather-beaten and standing alone, without any company, though it had formerly many buildings about it. In its church-yard lie many *Roman Catholics*. At a public-house on the south side of the church is a medicinal spring.

PANCRATIUM (compounded of *παν* *all*, and *κρατω* *I overcome*), among the ancients, a kind of intermixed exercise, consisting of the *lucta* or wrestling, and the boxing or pugilate; but it differs in this, that as the *athletæ* are not to seize the body, their hands are not armed with gauntlets, and give less dangerous blows.

The *pancratium* was the third gymnastic exercise, and was not introduced till long after the others. The people who were engaged in these exercises were called *pancratiastæ*; which name was also given to such as did not confine themselves to one exercise, but succeeded in several different ones.

Barthelemi, in his *Travels of Anacharsis*, gives us a short account of one of those at which he supposes him to have been present in these words: "The action was soon terminated: a *Sicyonian* named *Sofratus*, a champion celebrated for the number of prizes he had won, and the strength and skill which had procured them, had arrived the preceding day. The greater part of the combatants yielded up all pretensions to the crown as soon as he appeared, and the others on the first trial; for in those preliminary essays, in which the *athletæ* try their strength by taking each others hands, he squeezed and twisted the fingers of his adversaries with such violence as instantly to decide the victory in his favour."

PANCREAS, in anatomy. See there, n° 95.

PANDA, in mythology, a goddess who was invoked and honoured as the protectress of travellers and navigators. The goddess of peace was also called *Pandar*, because she opened the gates of cities which were shut in time of war. According to *Varro*, *Panda* is a surname of *Ceres*, derived a *pane dando*, because she gave bread to mankind.

PANDATARIA (*Suetonius*, *Pliny*, *Strabo*); **PANDATERIA** (*Mela*, *Tacitus*): An island in the *Tuscan sea*; a place of banishment for the more illustrious

exiles. Hither *Julia*, the daughter of *Augustus*, was banished for her incontinence. To this island *Tiberius* banished *Agrippina*, his daughter-in-law (*Suetonius*). It was the place of confinement of *Octavia* the daughter of *Clodius*, married to *Nero*; a sight that affected every eye (*Tacitus*). Now *Santa Maria*, situated between *Pontia* and *Ischia* (*Hollstenius*).

PANDECTS, *PANDECTÆ*, in jurisprudence, the digest or collection, made by *Justinian's* order, of 534 decisions or judgments of the ancient lawyers, on so many questions occurring in the civil law; to which that emperor gave the force and authority of law, by the epistle prefixed to them.—The word is Greek, *Πανδεκται*, compounded of *παν* "all," and *δεχομαι* *capio*, "I take;" i. e. a compilation, or a book containing all things.—Though others, as *Bartoli*, will have it formed from *παν*, and *δεχομαι*; as if these books contained the whole doctrine of the law.

The *pandects* consist of 50 books, and make the first part of the body of the civil law.

They were denoted by two *ππ*; but the copists taking those *ππ* for *ff*, the custom arose of quoting them by *ff*.

In the year 1137, the *pandects* of *Justinian*, which had been brought by an *Amalfitan* merchant from the east, fell into the hands of the *Pisans*. *Angelus Politianus* believes this copy to be that which had been compiled by order of the emperor. However that be, it is certain that all other copies are taken from it, as being the most ancient. The *Pisans* having obtained their request from the emperor, carried the volumes to *Pisa*, and for near three centuries they were known by the name of the *Pandectæ Pisanae*. But, about the year 1416, *Pisa* being taken by the *Florentines*, they were transported from thence to *Florence*, where they are now preserved in the library of the *Medici*, and known by the name of the *Pandectæ Florentinae*. Some authors allege, that *Lotharius* ordained by an edict that the *Pandects* should be publicly read and explained at *Bologna*, and pleaded in the tribunals; but *Corringius* and *Lindembrogius* fully refute their opinion.

Papias extends the denomination of *Pandects* to the Old and New Testament.

There are also *PANDECTA Medicina*, "Pandects of Medicine;" a kind of dictionary of things relating to medicine, compiled by *Mat. Sylvaticus* of *Mantua*, who lived about the year 1297. *Leunclavius* has published *Pandects of Turkey*; and bishop *Beveridge*, *Pandecta canonum*.

PANDICULATION, a stretching; or that violent and tensive motion of the solids, which usually accompanies the act of yawning.

PANDORA, in fabulous history, a woman formed by *Prometheus*, to whom each of the gods gave some perfection. *Venus* bestowed upon her beauty; *Pallas*, wisdom; *Juno*, riches; *Apollo*, music; and *Mercury*, eloquence; but *Jupiter* being displeased at *Prometheus* for having stolen fire from heaven to animate the mass he had formed, gave *Pandora* a box, which she was ordered not to open; and then sent her to the earth with this box, in which were inclosed age, diseases, pestilence, war, famine, envy, discord, and all the evils and vices that could afflict mankind. This fatal box was opened by *Epimetheus*, *Prometheus's* brother, when instantly all the diseases and mischiefs with which

Pandectæ
||
Pandora.

Pandours
||
Panegyri-
cum.

it was filled spread over the earth, and Hope alone remained at the bottom. Hesiod says she was the first woman.

PANDOURS, are Hungarian infantry: they wear a loose garment fixed tight to their bodies by a girdle, with great sleeves, and large breeches hanging down to their ankles. They use fire-arms, and are excellent marksmen: they have also a kind of sabre near four feet long, which they use with great dexterity.

PANDOSIA (Livy, Justin, Strabo), an inland town of the Brutti, and a place of strength on the river Acheron, where Alexander of Epirus, deceived by the oracle of Dodona, met his fate and perished. Now *Mendicino* (Holstenius). Another of Epirus (Strabo); situated on the river Acheron (Livy); which Alexander of Epirus was advised to avoid as fatal, but which he met with in Italy. This last is said to have been the residence of the Ænotrian kings, (Strabo).

PANDURA, or PANDORON, a musical instrument, used among the ancients, resembling the lute. The word is said to be formed from the Greek *παν* and *δωρον*, i. e. "all gifts, all sorts of gifts." Isidore derives the name from its inventor *Pandorus*; others from *Pan*, to whom they attribute its invention, as well as that of the flute. It has the same number of strings with the lute; but they are of brass, and of consequence give a more agreeable sound than those of the lute. Its frets are of copper, like those of the cistre; its back is flat, like those of the guittar; and the rims of its table, as well as its ribs, are cut in semicircles. Du-Cange observes, that Varro, Isidore, and others of the ancients, mention it as having only three strings; whence it is sometimes also spoken of under the denomination *τριχορδον*, *trichordum*.

PANEAS (Pliny, Josephus); the apparent spring from which the Jordan rises, on the extremity of the west side of the Trachonitis (Pliny).

PANEAS (Coins, Pliny, Josephus), the name of a district adjoining to the spring *Paneas*, with a cognominal town, either enlarged and adorned, or originally built, by Philip son of Herod, and called *Cæsarea* by Josephus; and in St Matthew, *Cæsarea of Philip*; with a temple erected to Augustus his benefactor, who conferred the Trachonitis upon him (Coin). It was afterwards called *Neronias*, in honour of Nero (Josephus).

PANEGYRIC, an oration in praise of some extraordinary thing, person, or virtue.

The name is Greek, *πανηγυρις*; formed of *παν* "all," and *αγειν* "I assemble;" because anciently held in public and solemn assemblies of the Greeks, either at their games, their feasts, fairs, or religious meetings.

To make their panegyrics the more solemn, the Greeks used to begin with the praises of the deity in whose honour the games, &c. were celebrated; then they descended to the praise of the people or country where they were celebrated; then to the princes or magistrates who presided at them; and at length to the champions, especially the conquerors, who had gained the prizes in them.

PANEGYRICUM, in church-history, an ecclesiastical book, used by the Greek church, containing the panegyric orations of various authors, on the solemnities of Jesus Christ and the saints. It is found in MS.

in most churches, but is not the same in all; each church having its particular saints; and the compilers of this kind of books usually suited their collections to the taste of their own devotion. They are disposed according to the order of months, and frequently consist of twelve volumes, answering to the twelve months of the year.

Among the principal authors of this work are Athanasius, Cyrill, Basil, Chrysostom, &c.

PANEL (*Panella*, *Panellum*), according to Sir Edward Coke, denotes "a little part;" but the learned Spelman says, that it signifies *schedula vel pagina*, "a schedule or roll;" as a panel of parchment, or a counterpane of an indenture: but it is used more particularly for a schedule or roll, containing the names of such jurors as the sheriff returns to pass upon any trial. And the *impanelling* a jury is the entering their names in a panel or little schedule of parchment.

PANEL, in Scots law, signifies the prisoner at the bar, or person who takes his trial before the court of justiciary for some crime.

PANGOLIN, a species of the manis peculiar to Hindostan. It is certainly a remarkable variety, if not a different species, of the pangolin of Buffon. According to a paper in the first volume of the Asiatic Researches, "it has hardly any neck; and, though some filaments are discernible between the scales, they can scarce be called bristles. But the principal difference is in the tail; that of Buffon's animal being long, and tapering almost to a point; while that of ours is much shorter, ends obtusely, and resembles in form and flexibility the tail of a lobster. In other respects it seems to have all the characters of Buffon's pangolin; a name derived from that by which the animal is distinguished in Java, and consequently preferable to Manis, or Pholidotus, or any other appellation deduced from an European language. We are told that the Malabar name of this animal is *alungu*. The natives of Bahar call it *bajar-cit*, or, as they explain the word, *stone-vermine*; and in the stomach of the animal before us was found about a teacupful of small stones, which had probably been swallowed for the purpose of facilitating digestion; but the name alludes, we believe, to the hardness of the scales: for *vajracita* means in Sanscrit the *diamond* or *thunderbolt reptile*; and *vajra* is a common figure in the Indian poetry for any thing excessively hard. The *vajracita* is believed by the Pandits to be the animal which gnaws their sacred stone called *salgramasila*: but the pangolin has apparently no teeth; and the *salgrams*, many of which look as if they had been worm-eaten, are perhaps only decayed in part by exposure to the air.

"This animal had a long tongue shaped like that of aameleon; and if it was nearly adult, as we may conclude from the young one found in it, the dimensions of it were much less than those which Buffon assigns generally to his pangolin; for he describes its length as six, seven, or eight feet, including the tail, which is almost, he says, as long as the body when it has attained its full growth: whereas ours is but 34 inches long from the extremity of the tail to the point of the snout, and the length of the tail is 14 inches; but, exclusively of the head, which is five inches long, the tail and body are indeed nearly of the same length; and the small difference between them may show, if

Panel,
Pangolin.

Plate
CCCLXXIV.

Buffon

Pangolin. Buffon be correct in this point, that the animal was young. The circumference of its body in the thickest part is 20 inches, and that of the tail only 12. There are on each foot five claws, of which the outer and inner are small when compared with the other three. There are no distinct toes; but each nail is moveable by a joint at its root. This creature is extremely inoffensive. It has no teeth, and its feet are unable to grasp. Hence it would appear, that nature, having furnished it with a coat of mail for its protection, has, with some regard to justice, denied it the powers of acting with hostility against its fellow creatures. The nails are well adapted for digging in the ground; and the animal is so dexterous in eluding its enemies by concealing itself in holes and among rocks, that it is extremely difficult to procure one.

"The upper jaw is covered with a cross cartilaginous ridge, which, though apparently not at all suited to any purposes of mastication, may, by increasing the surface of the palate, extend the sense of taste. The œsophagus will admit a man's forefinger with ease. The tongue at the bottom of the mouth is nearly about the size of the little finger, from whence it tapers to a point. The animal at pleasure protrudes this member a great way from the mouth. The tongue arises from the ensiform cartilage and the contiguous muscles of the belly, and passes in form of a round distinct muscle from over the stomach, through the thorax, immediately under the sternum; and interior to the windpipe in the throat. When dissected out, the tongue could be easily elongated so as to reach more than the length of the animal exclusive of its tail. There is a cluster of salivary glands seated around the tongue, as it enters the mouth. These will necessarily be compressed by the action of the tongue; so as occasionally to supply a plentiful flow of their secretion.

"The stomach is cartilaginous, and analogous to that of the gallinaceous tribe of birds. When dissected, it is generally found full of small stones and gravel, which in India are almost universally calcareous. The inner surface of the stomach is rough to the feel, and formed into folds, the interstices of which are filled with a frothy secretion. The guts are filled with a sandy pulp, in which, however, are interspersed a few distinct small stones. No vestiges of any animal or vegetable food have been traced in the whole primæ viæ. The gall-bladder is commonly distended with a fluid resembling in colour and consistence the dregs of beer. It is a viviparous animal.

"From the contents of its stomach and primæ viæ, the pangolin has been supposed by Mr Burt, a very eminent surgeon in Bengal, to derive its nourishment from mineral substances. Tho' we have perhaps no clear idea of the manner in which vegetables extract their nourishment from earth, yet the fact being so, it may not be unreasonable to suppose, that some animal may derive nutriment by a process somewhat similar.

"When other substances (says our author) shall have been detected in the stomach of this animal, my inference, from what I have seen, must necessarily fall to the ground. But if, like other animals with muscular and cartilaginous stomachs, this singular quadruped consume grain, it must be surprising that no vestige of such food was found present in the whole alimentary canal, since in that thinly inhabited coun-

try, the wild animals are free to feed without intrusion from man. Nor can it be inferred from the structure of the stomach, that this animal lives on ants or on insects. Animals devoured as food, though of considerable size and solidity, with a proportionally small extent of surface to be acted on by the gastric juice and the action of the stomach, are readily dissolved and digested by animals possessing not a cartilaginous but a membranaceous stomach, as, for instance, a frog in that of a snake.

"In the stomach many minerals are soluble, and the most active things which we can swallow. Calcareous substances are readily acted on. Dr Priestley has asked, 'May not phlogistic matter be the most essential part of the food and support of both vegetable and animal bodies?' I confess, that Dr Priestly's finding cause to propose the question, inclines me to suppose, that the affirmative to it may be true. Earth seems to be the basis of all animal matter. The growth of the bones must be attended with a constant supply, and in the human species there is a copious discharge of calcareous matter thrown out by the kidneys and salivary glands. May not the quadruped in question derive phlogiston from earth; salt, from mineral substances? And, as it is not deprived of the power of drinking water, what else is necessary to the subsistence of his corporeal machine?

"Considering the scaly covering of this animal, we may conceive, that it may be at least necessary for its existence, on that account, to imbibe a greater proportion of earth than is necessary to other animals. It may deserve consideration, that birds are covered with feathers, which, in their constituent principles, approach to the nature of horn and bone. Of these animals, the gallinaceous tribe swallow stones; and the carnivorous take in the feathers and bones of their prey: the latter article is known to be soluble in the membranaceous stomachs; and hence is a copious supply of the earthy principles. In truth I do not know that any thing is soluble in the stomach of animals, which may not be thence absorbed into their circulating system; and nothing can be so absorbed without affecting the whole constitution. These conjectures are not a little confirmed by the experiments of M. Bruquatelli of Pavia, on the authority of M. Croll, by which we learn, that some birds have so great a dissolvent power in the gastric juice, as to dissolve in their stomachs flints, rock-crystal, calcareous stones, and shells." See MANIS.

PANGONIA, in natural history, the name of a genus of crystals, consisting of such as are composed of many angles. The word is derived from *παν* numerous, and *γων* an angle or bending. The bodies of this genus are single-pointed or imperfect crystals, composed of dodecangular or twelve-planed columns, terminated by twelve-planed pyramids, and the whole body therefore made up of twenty-four planes. Of this genus there are only three known species.

PANIC, denotes an ill grounded terror or fright. Polyænus says, it originates from *Pan*, one of the captains of Bacchus, who with a few men put a numerous enemy to rout, by a noise which his soldiers raised in a rocky valley, favoured with a great number of echoes. This stratagem making their number appear far greater than it was, the enemy quitted a very commodious encampment,

Panicle,
Panicum.

encampment, and fled. Hence all ill-grounded fears have been called *panics*, or *panic-fears*; and it was this that gave occasion to the fable of the nymph Echo's being beloved by the god Pan. Others derive the origin of it hence; that in the wars of the Titans against the gods, Pan was the first who struck terror into the hearts of the giants. Theon on Aratus says, he did it by the means of a sea-shell, which served him for a trumpet, whereof he was the inventor.

PANICLE, in botany, denotes a soft woolly beard, on which the seeds of some plants hang pendulous; as in millet, reeds, and hay.

PANICUM, in botany; a genus of the digynia order, belonging to the triandria class of plants. The calyx is trivalved; the third valvule being very small.

The *species* are, 1. Polystachion; 2. Verticillatum; 3. Glaucum; 4. Viride; 5. Italicum; 6. Crus corvi; 7. Crus galli; 8. Coronum; 9. Brisoides; 10. Dimidiatum; 11. Hirtellum; 12. Conglomeratum; 13. Sanguinale; 14. Dactylon; 15. Filiforme; 16. Lineare; 17. Distachion; 18. Elatum; 19. Compositum; 20. Halvolum; 21. Dichotomum; 22. Ramosum; 23. Coloratum; 24. Repens; 25. Miliaceum; 26. Capillare; 27. Grossarium; 28. Latifolium; 29. Clandestinum; 30. Arborefcens; 31. Curvatum; 32. Virgatum; 33. Patens; 34. Brevifolium; 35. Divaricatum.

At this place it is proper to take notice of the Guinea-grass. By some authors it is classed as a panicum; but by expert botanists, who have lately examined the plant, it is the *holcus polygamum*. It is a native of Africa, and brought from thence to the West Indies. About 70 years ago Mr John Ellis got some birds from the coast of Guinea, and with them some seeds for their support: The birds dying soon after, the seeds were thrown out of doors as useless. From these seeds a new luxuriant grass sprung up, which attracted the notice of Mr Ellis and his family. He had a horse, and afterwards a cow, brought where it was; both of them eat of it greedily. It was then transplanted into a garden, and gradually cultivated: at this day it is common all over Jamaica; and next to the sugar-cane and plantain-tree, the greatest blessing to that island. It agrees with every soil and situation; and in many of the rocky and barren parts of Jamaica, which formerly could not support a goat, may now be seen large herds of cattle, sheep, and horses, in excellent order, and fitted for all the purposes of rural œconomy or the market. Since Guinea-grass became so common, salted beef and pork is but little used by the white people in Jamaica. Fresh beef, mutton, pork, and poultry, are in abundance; and on the whole cheaper than salted meats from Ireland or America: By these means, too, people live better, and enjoy as good health as others in Europe.

Guinea-grass is best propagated by the roots, and planted about three feet asunder. In six months it grows very tall, so as often to be six feet high. At this time horses and cattle are turned in to eat what they please of it; and while they plough up the surface of the ground with their feet, they shake the ripe seed. The rank grass is afterwards cut down, burned off, and the old stocks rooted up and thrown away. The seeds vegetate and throw up a plentiful crop; which with common attention will last many years.

For this purpose a Guinea-grass pasture requires to be kept clean, and supplied in particular places as may be necessary from time to time. The fields ought to be divided into parks by fences, and the cattle shifted from one inclosure to another occasionally.

PANINI (Paolo), a painter of perspective and architecture. He was born at Placentia in 1691, with a most happy genius to painting, which he cultivated by studying at Rome, where he designed every vestige of ancient magnificence, the ruins of superb Roman edifices, cenotaphs, columns, baths, arches, and obelisks, as also some of the most entire buildings, the ornaments of modern Rome.

He studied the works of Ghisolfi with peculiar pleasure; he formed his taste, style, and manner, by the compositions of that esteemed artist; and his strongest ambition was to imitate him; so that he soon became eminent in that style beyond all his cotemporaries. His composition is rich; the truth of his perspective is critically exact; and his paintings are universally esteemed for the grandeur of the architecture, for the clearness of his colouring, for the beautiful figures which he generally introduced, and also for the elegant taste with which he disposed them. He always designed them correctly, and set them off with suitable attitudes and expression.

However, this description of his merit must be supposed to allude to his early and prime performances; for in his latter time, his pictures were distinguishable by a free and broad touch, but they are feeble in their colouring and effect. At all times, indeed, he was too apt to design his figures rather too large for the architecture, which diminished the grandeur of the most magnificent parts of his composition, and was quite contrary to the practice of Ghisolfi; whose works must perpetually afford a pleasing deception to the eye, by the perspective proportions observed between the figures, buildings, and distances.

At Rivoli, a pleasure-house belonging to the king of Sardinia, there are several of Panini's paintings, which are views of that fine retreat and its environs. They are beautifully coloured, well handled, and with a touch full of spirit; though in some parts the yellow seems a little too predominant, and the lights are not always distributed in such a manner as to produce the most striking effect.

PANIONIA, in antiquity, a festival celebrated in honour of Neptune by a concourse of people from all the cities of Ionia. It is remarkable in this festival, that if the bull offered in sacrifice happened to bellow, it was accounted an omen of divine favour; because that sound was thought to be acceptable to Neptune.

PANNARIA, one of the Lipari islands. See LIPARA, and LIPARI.—The ancients called it *Thernisia*, from the hot waters which they found in it. It may be about eight or nine miles in circumference. It bears wheat, and grapes from which the inhabitants make wine. Pannaria, like the other adjacent islands, appears to be a volcano; its original having been destroyed by continued eruptions. It is now no longer of a conical figure. It contains about 100 inhabitants, reckoning every soul, men, women, and children. It is, like Stromboli, governed by a curate, who depends on the priest of the parish of St Joseph in Lipari; and

Panini
||
Pannaria.

Pannaria. when any couple in the island determine to marry, they must cross the sea to Lipari to receive the nuptial benediction in the parish of St Joseph, or pay a sum for a licence to empower the curate of Pannaria to perform the ceremony. All the other adjoining islands are subject to the same regulation.

The inhabitants of Pannaria live by fishing, and by taking small quantities of game on this and the little contiguous islands. They bring up and tame those birds known by the name of *gulls*, which are seen in tempestuous weather flying near the surface of the sea. They are here called *corraccio*. The body of the bird and the tips of its wings are white; but the head, the tail, and the rest of the wings, are grey: they are of the size of Indian hens: their wings are prodigiously large: they have their nests on the steep inaccessible cliffs of the several islands. When the islanders bring these birds up tame, they feed them with fish, which, though of such size that you would think it impossible for their stomachs to receive them, they eagerly stretch their necks and swallow rapaciously. These birds are thus brought up to be as tame as pullets or pigeons: and such an attachment do they often acquire to the places in which they are reared, that some of them have been known to return to these islands after being conveyed to Melazzo and Messina.

On the summit of a hill in this island, which projects over the sea, the inhabitants pretend to show a castle and an inscription. But their castle is only an elevated peak of the rock, which nature seems to have prepared as a retreat for birds. It consists of puzzolana; and has been actually formed by the action of winds and rains, for a long course of time, into a fantastic figure, which may appear, when carelessly viewed from a distance by an undistinguishing eye, the remains of some ancient structure. The good people of the island, not being able to judge of it otherwise than from appearance, are persuaded, that it can be nothing but a castle, which must have been reared for the defence of the island against the Turks and the corsairs of Barbary. These they consider as the most dreadful scourge with which mankind can possibly be afflicted, and fear them much more than the eruptions of the volcano. When they feel their island shaken, they embark with all their wealth, which a single sloop easily contains; and on board they are safe from both the shaking of the earth and the eruptions of the lava, but not from an hostile fleet.

In this island there appear various remains of ancient buildings, but very ruinous and very scanty. In ploughing the fields, many remains of sepulchres, in different modes of construction, are found; some of rough stones, tiles, or bricks; others consisting each of a single stone. Vases of various sorts and sizes are also said to have been found in the same fields, utensils of different kinds, money, chains, and medals of lead. But none of these relics of antiquity have been preserved: the good people who found them were ignorant of their value, and therefore neglected them as trifles. In places along the shore of the island, where the sea appears to have encroached, there are some hewn stones to be seen: they seem to be remains of walls, which must have been very strong and of elegant architecture. In other places farther distant from the shore, there likewise appear fragments of walls sunk in the ground, and appa-

rently overwhelmed with mud, which the winds and rains have brought down from the mountain above. These remains show, that Pannaria, either under the Greeks, or in that period when all the elements were taxed for the gratification of Roman luxury, must have been adorned with superb buildings, as well as the adjacent islands of Lipari, Stromboli, and Basiluzzo.

PANNELS of a SADDLE, are two cushions or bolsters, filled with cow's, deer, or horse's hair, and placed under the saddle, on each side, to prevent the bows and bands from galling the horse.

PANNICULUS CARNOSUS, in comparative anatomy, a robust fleshy tunic, situated in beasts between the skin and the fat; by means of which they can move their skin in whole or in part. It is altogether wanting in mankind.

PANNONIA (Pliny, Strabo, Dio), an extensive country of Europe, having the Danube on the north, Dalmatia on the south, Noricum on the west, and Moesia on the east. It is divided into *Superior* and *Inferior* (Ptolemy, Dio). The common boundary between both were the river Arabo and mount Cetius, having the Superior to the west, and the Inferior on the east side. This division is thought to be no older than the times of the Antonines. *Pannonicus* the epithet (Martial).

PANOMPHÆUS, in antiquity, a designation given to Jupiter, because he was said to be the original author of all sorts of divination, having the books of fate, and out of them revealing either more or less, as he pleased, to inferior dæmons.

PANOPOLIS. See **ACHMIM.**

PANORMUS (Polybius, Pausanias), a town of Achaia, in Peloponnesus, near the promontory Rhium. — Another (Ptolemy, Pliny), a town on the north side of Crete. — A third (Ptolemy), in Macedonia, on the Ægean sea, near mount Athos. — A fourth, of Samos. (Livy). — A fifth, of Sicily; an ancient city, built by the Phœnicians (Thucydides); a principal town of the Carthaginians (Polybius); situated between Lilybæus and Pelorus (Mela): a Roman colony. Now *Palermo*, capital of the island, on the north side. E. Long. 13. N. Lat. 38. 30. — A sixth Panormus of the Thracia Chersonesus, placed by Pliny on the west side of the peninsula, and mentioned by no other writer.

PANORMUS (Ptolemy), a port of Attica; its name denoting it to be capacious. — Another, of Epirus (Strabo, Ptolemy); a large harbour in the heart of the Montes Cerauni, below the citadel Chimæra. — A third, of Ionia (Strabo); near Ephesus, with the temple of the Ephesian Diana.

PANORPA, the SCORPION-FLY, in zoology, a genus of insects belonging to the order of neuroptera. The rostrum is horny and cylindrical; there are two pappi, and three stemonata; the feelers are longer than the thorax. The body of this insect is of a black brown colour, yellow on the sides, with a few spots of the same on the top. Its tail, formed by the three last segments of the abdomen, is of a maroon colour; of those three segments, the last is larger, almost round, and terminates in two hooks, which constitutes a tail like that of the scorpion. The wings as long as the body, are diaphanous, reticulated, with fibres and stripes of spots of a brown colour. Sometimes we meet with different varieties of this insect, consisting in the colour of

Pannels
||
Panorpa.

Plate
CCCLXXXII.

Barbut on
Insects.

Pantalaria
||
Pantaloön.

of the wings. Some, instead of several stripes of spots upon their wings, have only a single black stripe, transverse and irregular, situated on the middle of the wing, the extremity whereof is also black: others have their wings entirely white, excepting the extremity, which is black. The kind of forceps that is seen at the hinder part of this insect is used by the males to lay hold of their females in their amorous embraces: the threatening tail of the male does no mischief. This insect is found in meadows, by the side of ditches. There are four species, distinguished by the colour and shape of their wings.

PANTALARIA, an island in the Mediterranean sea, between Sicily and the main land of Africa, about 17 miles in circumference. It is near the coast of Tunis, and abounds in cotton, fruits, and wine; but the inhabitants are obliged to bring all their corn to Sicily, as it belongs to the king of the two Sicilies. E. Long. 12. 25. N. Lat. 36. 55.

PANTÆNUS, a stoic philosopher, born in Sicily (though some have erroneously supposed him to be a Hebrew) about the beginning of the reign of Commodus. He presided over the celebrated school of Alexandria, where, from the time of St Mark, the founder of that church, they had always a divine that was eminent for his learning and piety, to explain the Holy Scriptures, and to instruct them in human learning. This employment he was obliged to leave; for when the Indians required of Demetrius bishop of Alexandria to send them one to instruct them in Christianity, he sent Pantænus, who undertook the mission with joy, and behaved himself very properly in it. We are told, that the Indians had been tinged with Christianity by St Bartholemew the apostle; and that Pantænus met with the Hebrew original of St Matthew's gospel, which the apostle had left there. St Jerome says that Pantænus brought it with him; and that it was, in his time, preserved in the library of Alexandria. But we suspect St Jerome to be mistaken in this respect. When Pantænus returned to Alexandria, he reassumed the government of the school of that city, which, it is probable, he had, during his absence, committed to the care of St Clement, a presbyter of Alexandria. He explained the scriptures publicly, under the reign of Severus and Antoninus Caracalla; and was, in St Jerome's opinion, more serviceable to the church by his discourses than by his writings. He published some commentaries upon the Bible, which are lost. "That the prophets often express themselves in indifferent terms, and that they make use of the present time instead of the past and future," is a rule of Pantænus, which has been followed by all succeeding interpreters. Theodorus has related this rule; but he speaks of it as if Pantænus had rather said than written it.

We may have some notion of Pantænus's manner of explaining the scriptures by the like performances of St Clement of Alexandria, Origen, and others who were brought up in that school.

PANTALOON, a sort of garment consisting of breeches and stockings all of one piece; said to have been first introduced by the Venetians.

PANTALOON, on the theatre, is a buffoon or masked person, who performs high and grotesque dances, and shows violent and extravagant postures and airs. The word is likewise used for the habit or dress these
N° 258.

buffoons usually wear; which is made precisely to the form of their body, and all of a piece from head to foot.

And hence those who wear a habit of this kind, for conveniency, under their other clothes, are called *pantaloons* of Venice.

PANTARBE, in natural history, a name given to an imaginary stone, the effects of which upon gold were similar to those of the loadstone upon iron. The ancients, as well as some modern writers, seem to have had an opinion that there was such a stone; and the *amphitane* of Pliny is described as possessing this remarkable quality; but neither they nor we have ever found reason, from any experiment well ascertained, to believe that there ever was such a stone.

PANTHEA, in antiquity, were single statues, composed of the figures, or symbols, of several different divinities together. Father Joubert, who calls them *panthea*, and who has remarked them sometimes on medals, says their heads are most commonly adorned with the symbols or attributes belonging to several gods. An instance of this appears in a medal of Antoninus Pius; which represents Serapis by the bushel it bears; the Sun by the crown of rays; Jupiter Ammon by the rams horns; Pluto by the large beard; and Æsculapius by the serpent twisted in his hand. M. Baudelot, in a dissertation on the Lares, observes, that the *panthea* had their origin from the superstition of those, who, taking several gods for the protectors of their houses, united them all in the same statue, by adorning it with the several symbols proper to each of these deities.

PANTHEISM, a philosophical species of idolatry leading to atheism, in which the universe was considered as the supreme God. Who was the inventor of this absurd system, is, perhaps, not known; but it was of early origin, and differently modified by different philosophers. Some held the universe to be one immense animal, of which the incorporeal soul was properly their God, and the heavens and earth the body of that God; whilst others held but one substance, partly active and partly passive; and therefore looked upon the visible universe as the only *Numen*. The earliest Grecian Pantheist of whom we read was Orpheus, who called the world *the body of God*, and its several parts *his members*, making the whole universe one *divine animal*. According to Cudworth, Orpheus and his followers believed in the immaterial soul of the world; therein agreeing with Aristotle, who certainly held that God and matter are coeternal; and that there is some such union between them as subsists between the souls and bodies of men. See METAPHYSICS, n° 264.

In the ancient Orphic theology, we are taught, that "this universe, and all things belonging to it, were made *within* God; that all things are contained together in the *womb* of God; that God is the *head* and *middle* of all things; that he is the *basis* of the *earth* and *heaven*; that he is the *depth* of the *sea*, the *air* we breathe, the force of the untameable *fire*; that he is the *sun*, *moon*, and *stars*; that there is one *divine body*; for,

Πάντα γὰρ ἐν μεγάλῳ τῷ θεῷ σωματικαί
"all these things lie in the great body of God."—But further, to prove that the most ancient Greek philosophers

Pantarbe
||
Pantheism.

Pantheism, fophers resolved all things into God, and made God all, we shall cite a most remarkable passage from Plutarch's Defect of Oracles. "Whereas there are two causes of all generations, the divine and the human, the most ancient theologers and poets attended only to the more excellent of these two; resolving all things into God, and pronouncing this of them universally;

Ζεὺς ἀρχὴ, Ζεὺς μέσσα, Διὸς δ' ἐκ παντὸς πέλοισι

'that God is both the beginning and middle, and that all things are out of God;' inasmuch, that they had no regard at all to the other natural and necessary causes of things: but on the contrary, their juniors, who were called *naturalists*, deviating from this most excellent and divine principle, placed all in *bodies*, their passions, collisions, mutations, and commixtures."

That by the most ancient theologers here mentioned, Plutarch meant Orpheus and his immediate followers, is plain from the Orphic verse by which he proves their antiquity. By their juniors, whom he calls *naturalists*, he could mean no other than the first Jewish philosophers, *Anaximander*, *Anaximenes*, and *Hippo*, who were followed by the atheistical atomists, *Leucippus*, *Democritus*, *Protagoras*, and *Epicurus*. But with respect to the universe being God, and all things divine and human being modifications of mere matter, the stoics undoubtedly agreed with *Anaximander* and his followers; for the school of *Zeno* held but one substance. See *METAPHYSICS*, n° 265. This impious doctrine, that all things are God, and that there is but one substance, was revived in modern times by *Spinoza*, an apostate Jew. As we shall give a life of him and a view of his principles, we must refer the reader for a fuller account of Pantheism to *SPINOZA*. See also *PAN*.

PANTHEON, a beautiful edifice at Rome, anciently a temple, dedicated to all the gods; but now converted into a church, and dedicated to the Virgin and all the martyrs.

This edifice is generally thought to have been built by *Agrippa* son-in-law to *Augustus*, because it has the following inscription on the frieze of the portico.

M. AGRIPPA L. F. COS. TERTIUM FECIT.

Several antiquarians and artists, however, have supposed that the pantheon existed in the times of the commonwealth; and that it was only embellished by *Agrippa*, who added the portico. Be this as it will, however, the pantheon, when perfected by *Agrippa*, was an exceedingly magnificent building; the form of whose body is round or cylindrical, and its roof or dome is spherical: it is 144 feet diameter within; and the height of it, from the pavement to the grand aperture on its top, through which it receives the light, is just as much. It is of the Corinthian order. The inner circumference is divided into seven grand niches, wrought in the thickness of the wall: six of which are flat at the top; but the seventh, opposite to the entrance, is arched. Before each niche are two columns of antique yellow marble fluted, and of one entire block, making in all 14, the finest in Rome. The whole wall of the temple, as high as the grand cornice inclusive, is cased with divers sorts of precious marble in compartments. The frieze is entirely of porphyry. Above the grand cornice arises an attic, in which were wrought, at equal distances, 14 oblong square niches: between each niche were four marble pilasters, and between the pila-

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sters marble tables of various kinds. This attic had a complete entablature; but the cornice projected less than that of the grand order below. Immediately from the cornice springs the spherical roof, divided by bands, which cross each other like the meridians and parallels of an artificial terrestrial globe. The spaces between the bands decrease in size as they approach the top of the roof; to which, however, they do not reach, there being a considerable plain space between them and the great opening. That so bold a roof might be as light as possible, the architect formed the substance of the spaces between the bands of nothing but lime and pumice-stones. The walls below were decorated with lead and brass, and works of carved silver over them; and the roof was covered on the outside with plates of gilded bronze. There was an ascent from the springing of the roof to the very summit by a flight of seven stairs. And if certain authors may be credited, these stairs were ornamented with pedestrian statues ranged as an amphitheatre. This notion was founded on a passage of *Pliny*, who says, "That *Diogenes* the sculptor decorated the pantheon of *Agrippa* with elegant statues; yet that it was difficult to judge of their merit, upon account of their elevated situation." The portico is composed of 16 columns of granite, four feet in diameter, eight of which stand in front, with an equal intercolumniation all along, contrary to the rule of *Vitruvius*, who is for having the space answering to the door of a temple, wider than the rest. Of these columns is a pediment, whose tympanum, or flat, was ornamented with bas-reliefs in brass; the cross beams which formed the ceiling of the portico were covered with the same metal, and so were the doors. The ascent up to the portico was by eight or nine steps.

Such was the pantheon, the richness of which induced *Pliny* to rank it among the wonders of the world.

The eruption of *Vesuvius*, in the reign of *Tiberius*, damaged the Pantheon very considerably: it was repaired by *Domitian*; which occasioned some writers to mention that prince as the founder of the building. The emperor *Adrian* also did something to it. But it appears, that the pantheon is more indebted to *Septimius Severus*, than to any one since its erection. The most, perhaps, that any of his predecessors had done, was the adding some ornament to it: *Septimius* bestowed essential reparations upon it. The following inscription appears upon the architrave:

IMP. CAES. SEPTIMIUS SEVERUS.
PIVS. PERTINAX.
ARABICVS. PARTHICVS. PONTIF.
MAX. TRIB. POT.
XI. COS. III. P. P. ET. IMP. CAES.
MARCVS.
AVRELIVS. ANTONINVS. PIVS.
FELIX. AVG. TRIB.
POT. V. COS. PROCOS. PANTHEVM.
VETVSTATE.
OBRVPTVM. CVM. OMNI. CVLTV.
RESTITVERVNT.

It is really a matter of astonishment, that a structure, which, granting it to have been built by *Agrippa*, was not more than 200 years old, should have fallen into decay through age. This single consideration seems sufficient to confirm the opinion of those

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Pantheon. who believe it to have stood in the time of the commonwealth.

The temple subsisted in all its grandeur till the incursion of Alaric in the time of Honorius. Zozyms relates, that the Romans having engaged to furnish this barbarian prince with 3000 pounds weight of gold and 5000 pounds weight of silver, upon condition that he should depart from their walls; and it proving impossible to raise those sums either out of the public treasury or private purses, they were obliged to strip the temples of their statues and ornaments of gold and silver. It is probable that the pantheon supplied a good part, as that of Jupiter Capitolinus was the only one in Rome that could vie with it for riches.

Alaric carried off nothing from the Romans besides their precious metals. Thirty-nine years after this, Genseric king of the Vandals took away part of their marbles; and whether from a greediness of plunder, or from a relish of the productions of art, loaded one of his ships with statues. It cannot be questioned, but that on this occasion the pantheon was forced to part with more of its ornaments, and that the inestimable works of Diogenes became the prey of this barbarian.

Before these unwelcome visits of the Goths and Vandals, the Christian emperors had issued edicts for demolishing the Pagan temples. But the Romans, whatever were their motives, spared the pantheon, which is known to have suffered no damage from the zeal of the pontiffs, or the indignation of the saints, before the first siege of Rome by Alaric. It remained so rich till about the year 655, as to excite the avarice of Constantine II. who came from Constantinople to pillage the pantheon, and executed his purpose so far as to strip it both of its inside and outside brazen coverings, which he transported to Syracuse, where they soon after fell into the hands of the Saracens.

About fifty years before this, pope Boniface IV. had obtained the pantheon of the emperor Phocas, to make a church of it. The artists of these days were totally ignorant of the excellence of the Greek and Roman architecture, and spoiled every thing they laid their hands upon. To this period certain alterations are to be referred, of which we shall speak by and by.

After the devastations of the barbarians, Rome was contracted within a narrow compass: the seven hills were abandoned; and the Campus Martius, being an even plain, and near the Tyber, became the ground-plat of the whole city. The pantheon happening to stand at the entrance of the Campus Martius, was presently surrounded with houses, which spoiled the fine prospect of it; and it was yet more deplorably disgraced by some of them which stood close to its walls. Pedlars shades were built even within its portico, and the intercolumniations were bricked up, to the irreparable damage of the matchless pillars, of which some lost part of their capitals, some of their bases, and others were chiseled out six or seven inches deep, and as many feet high, to let in posts. Which excavations are to this day half filled up with brick and mortar; a sad monument of the licentiousness of the vulgar, and of the stupid avarice of those who sold them the privilege to ruin the noblest piece of art in the world!

This disorder continued till the pontificate of Eu-

gene IV. whose zeal for the decency of a consecrated place, prevailed upon him to have all the houses cleared away that incumbered the pantheon, and so the miserable barracks in the portico were knocked down.

From the time Constantius carried off the brass plating of the external roof, that part was exposed to the injuries of the weather, or at best was but slightly tiled in, till Benedict II. covered it with lead, which Nicholas V. renewed in a better style.

It does not appear that from this time to Urban VIII. any pope did any thing remarkable to the pantheon.

Raphael Urban, who had no equal as a painter, and who as an architect had no superior, left a considerable sum by his will for the reparation of the pantheon, where his tomb is placed. Perino de la Vagua, Jacomo Udino, Hannibal Carracci, Flamingo Vacca, and the celebrated Archangelo Corelli, did the same. All the ornaments within, that have any claim to be called good, are of the later times; the paintings merit esteem; and the statues, though not masterpieces, do honour to sculpture, which alone is a proof that they are posterior to the 15th century.

But, with all the respect due to a pontiff, who was otherwise a protector, and even a practiser of the arts, it were much to be wished that Urban VIII. had not known that the pantheon existed. The inscriptions cut at the side of the door inform us, that he repaired it; yet, at the same time that he built up with one hand, he pulled down with the other. He caused two bel-fries of a wretched taste to be erected on the ancient front work, and he divested the portico of all the remains of its ancient grandeur, viz. the brazen cover-ture of the cross beams, which amounted to such a prodigious quantity, that not only the vast baldachin or canopy of the confessional in St Peter's was cast out of it, but likewise a great number of cannon for the castle of St Angelo. This pope, who was of the family of Barbarini, presented also as much of this metal to his nephew, as was sufficient for the decoration of his new palace; on which occasion this remarkable pasquinade was stuck up:

Quod non fecerunt Barbari fecere Barbarini.

If ever gingle added force to wit, it was certainly in this instance.

It is surprising, that whilst all these operations were carrying on in the portico, he never once thought of repairing the damages which time had wrought in it! Of the 16 pillars which supported this magnificent pile, there were no more than 13 left; the three next the temple of Minerva had disappeared; with these the entablature and an angle of the front had tumbled down. There were not wanting in Rome fragments enough of antique columns that might have been put together, and set up, to have prevented the downfall of a pile which deserved to stand as long as the world endured.

Alexander VII. did what Urban VIII. had neglected to do. At the same time that Bernini was constructing the colonnade of St Peter, this pontiff ordered search to be made for pillars to match those of the portico of the pantheon; and some were found not far from the French church of St Lewis of the very same model. They were granite of the isle of Ilva, and those

Pantheon
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Panting.

those of the portico were Egyptian granite; the colour, however, was the same, so that the effect was equal. The pope's zeal did not stop here; he caused all the old houses before the portico to be pulled down, and the soil and rubbish to be cleared away which covered the steps, and even the bases of some of the pillars. He began covering the roof with marble, and raised a lantern over the aperture, to keep out rain; but death took him off before his project was completed. Clement IX. his successor, inclosed the portico within iron rails. Several later popes have added to its decorations, which were all in the taste of the times they were done in; and the body of the edifice and its architecture gained nothing from them. The main object of their holinesses liberality was the embellishment of the grand altar. One gave purple curtains, another bestowed silver tabernacles; others again vases, and superb dresses, suited to the solemn ceremonies of religion. All these might be called rich; but they had in no sense a tendency to retrieve the ancient majesty or original splendor of the temple. The true gusto of the ornaments was a little imitated at the revival of the arts. Good statues took place of the skeletons and squat figures that ridiculously disgraced the altars for the space of eight centuries. The paintings of Perugino, Cozza, and Gressi, covered the dull mosaics with which the Greeks of Constantinople had loaded the walls of most of the churches in Rome. The porphyry and the green and yellow antique found among the old ruins were employed to much advantage.

There was besides at Rome another pantheon, dedicated to Minerva as the goddess of medicine. It was in the form of a decagon, and the distance from one angle to another measured about 22 feet and an half. Between the angles there were nine round chapels, each of which was designed for a deity; and over the gate there was a statue of Minerva. The pantheon of Athens was in many respects little inferior to the Roman one built by Agrippa. The Greek Christians also converted it into a church, dedicated it to the Virgin, under the name of *Panagia*; and the Turks changed it into a mosque. The pantheon of Nismes was a temple in that city, wherein were 12 niches or statues, supposed to have been destined for the 12 great gods. In the Escorial is a most magnificent chapel, called *pantheon*, 35 feet in diameter, and 38 feet high from the pavement, which is composed of marble and jasper inlaid. The whole inside of the chapel is of black marble, except the luthern, and some ornaments of jasper and red marble. In this chapel are deposited the bodies of the kings and queens; there are only places for 26, and eight of them are already filled.

PANTHER, in zoology. See FELIS.

PANTING, consists in a rapid succession of in-

spirations and expirations, which happens when we run or perform any violent motion.

PANTOMIME, Παντομιμος, among the ancients, a person who could imitate all kind of actions and characters by signs and gestures without speaking.

The pantomimes made a part in the theatrical entertainments of the ancients; their chief employment was to express, in gestures and action, whatever the chorus sung, changing their countenance and behaviour as the subject of the song varied. They were very ancient in Greece, being derived from the heroic times, according to some; but however this may be, they were certainly known in Plato's time. In Rome, it was so late as the time of Augustus before they made their appearance. As to their dress, it was various, being always suited as near as possible to that of the person they were to imitate. The crocota was much used among the Roman pantomimes, in which and other female dresses they personated women.

We have this account of them in Gibbon's history: "The pantomimes (A), who maintained their reputation from the age of Augustus to the sixth century, expressed, without the use of words, the various fables of the gods and heroes of antiquity; and the perfection of their art, which sometimes disarmed the gravity of the philosopher, always excited the applause and wonder of the people. The vast and magnificent theatres of Rome were filled by 3000 female dancers, and by 3000 singers, with the masters of the respective chorusses. Such was the popular favour which they enjoyed, that in a time of scarcity, when all strangers were banished from the city, the merit of contributing to the public pleasures exempted them from a law which was strictly executed against the professors of the liberal arts (B)."

Pantomimes are still very common in England: they differ indeed in some respects from those of antiquity; but they retain the name, and like these they consist in the representations of things merely by gestures.

PANUCO, a town and province of North America, in New Spain, lying to the north of Mexico, with a bishop's see. There are veins of gold, and salt works, which are the principal revenue of the inhabitants. — It is seated near the mouth of a river of the same name, at a small distance from the Gulph of Mexico. W. Long. 100. 5. N. Lat. 24. 0.

PANZACCHIA (Maria Helena). This paintress was born at Bologna in 1668, of a noble family, and appeared to have an extraordinary genius for painting. She learned design under the direction of Emilio Taruffi, and in a short space of time made an astonishing proficiency; so that in the compass of a few years she acquired great readiness in composition, correctness of outline, and a lovely tint of colouring.

She also excelled in painting landscapes; and by

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(A) "See the dialogue of Lucian, intitled, *De Saltatione*, tom. ii. p. 265—317. edit. Reitz. The pantomimes obtained the honourable name of *Χαιροποιοι*; and it was required that they should be conversant with almost every art and science. Burette (in the *Memoires de l'Academie des Inscriptions*, tom. i. p. 127, &c.) has given a short history of the art of pantomimes.

(B) "Ammianus, l. xiv. c. 6. He complains, with decent indignation, that the streets of Rome were filled with crowds of females, who might have given children to the state, but whose only occupation was to curl and dress their hair; and *jaclari volubilibus gyris, dum exprimunt innumera simulacra, quæ finxere fabulæ theatrales*."

Pantomime
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Panzacchia.

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the beauty of her situations and distances allured and entertained the eye of every judicious beholder. The figures which she inserted had abundance of grace; she designed them with becoming attitudes, and gave them a lively and natural expression. Her merit was incontestably acknowledged, and her works were exceedingly prized and coveted.

PAO-TING-FOU, in China, where the viceroy resides, is the most considerable city in the province next to Pekin. It has 20 others under its jurisdiction, three of the second and 17 of the third class. The country around it is pleasant, and inferior in fertility to no part of China. It is necessary to pass this city in going from Pekin to the province of Chan-si.

PAOLO (Marco). See PAULO.

PAPA, a small but strong town of Lower Hungary, in the county of Vespria. It was taken from the Turks in 1683, after raising the siege of Vienna, and is subject to the house of Austria. It is seated on a mountain, near the river Marchaez, in E. Long. 18. 10. N. Lat. 47. 20.

PAP-CASTLE, in England, in Bridekirk parish, Cumberland, stood two miles from Cockermouth, on the other side of the Darwent, whose Roman antiquity is proved by several monuments; and a large green stone vessel found here, with little images upon it, is supposed to have been formerly a Danish font for dipping of infants; and has been since used at Bridekirk in the neighbourhood for their sprinkling.

The name of *Pap-castle* seems to be contracted from Pipard its owner: it is said to have been demolished, and the materials employed to build Cockermouth castle.

Mr Routh, in a letter to Mr Gale, thus describes the ruins discovered at Pap-castle, Jan. 16. 174½.

“I made particular inquiry of the man in whose grounds they were discovered, and of some of the neighbours present at the discovery. The close in which they lay is a little to the south of the fort, on the declivity of the hill to the river, and bounded on the west by a narrow lane, probably the *via militaris* continued; and is usually shown to strangers as the most remarkable here for finding Roman coins. They are the largest ruins ever known to be discovered in these parts: for they met with three walls besides the pavement; the first lay east and west, and was covered with earth near a foot high; parallel to it at seven yards, they found a second; and between these two, about two yards deep (the height of the walls, which were six yards broad, and strongly cemented), they came to a pavement curiously laid with large flags, three quarters of a yard square, and two or three inches thick, as I measured them: but imagining there must be money under it, they covered it up till night, and then tore it all up. It was composed of flags of different thickness: under the thinner was a coarse strong cement, which caused them to be broken in taking up; but the thicker are pretty entire. Part of the wall stood on the floor, and the edge was secured by a fine red cement two inches thick, supposed to be intended to keep the floor dry. They imagined themselves at the corner of the building, the third wall standing at right angles with the first, and the second parallel to the stony lane, on which was an old hedge. On the floor they found a stone trough, or rather base of a pillar, about a foot high, and the hollowed part

square, and two inches deep. They likewise found a small earthen patera, which I procured, of the fine red clay, beautifully smooth, with letters impressed on the bottom; but so defaced as not to be intelligible.—Some years ago, the man's father who found these ruins dug up a conduit. The owner had no coins, nor knew of any. One of his neighbours showed me a large brass one defaced.”

Mr Routh, in another letter to Mr Gale, April 13. 1743, describes a fibula, a coin of Trajan, . . . IANO AVG. . . P. M. Rev. the emperor seated on a pile of arms, a trophy before him, S. P. Q. R. OPTI . . . S. C. and two oaken pieces of the adjoining timber of a house which appeared to have been burnt, in the gardens of Jerom Tully, Esq; of Carlisle. The earth as far as they dug was artificial, and antiquities are only found at a considerable depth.

Dr Stukeley says, the Roman castrum lies on the top of the hill above the village, and he traced its whole circumference, a bit of the Roman wall by the river side going to Wigton, and there the ditch is plainly visible, though half filled up with the rubbish of the wall. A subterraneous vault, floored with large slabs of free-stone, was found in the pasture of the south-east angle. The name of *Boroughs* includes both closes where it stood; and they find stones and slates with iron pins in them, coins, &c. on the whole spot below it, towards the water-side. It was a beautiful and well chosen plan, on the south-west side of a hill, a noble river running under, and pretty good country about it. Coins of Claudius, Adrian, and a silver Geta, PONT. REV. PRINCEPS IVVENTVTIS. He supposes its ancient name *Derwentio*, derived from the Derwent.

PAPAVER, the POPPY: A genus of the monogynia order, belonging to the polyandria class of plants; and in the natural method ranking under the 27th order, *Rhoeada*. The corolla is tetrapetalous; the calyx diphyllous; the capsule bilocular, opening at the pores below a persisting stigma.

Species. 1. The somniferum, or somniferous common garden-poppy, rises with an upright smooth stalk, dividing or branching a yard or more high; garnished with large, deeply jagged, amplexicaule, smooth leaves; and terminated by large, spreading, dark-purple, and other coloured flowers, in the varieties, having smooth cups and capsules. There are a great many varieties, some of them extremely beautiful. The white official poppy is one of the varieties of this sort. It grows often to the height of five or six feet, having large flowers, both singles and doubles, succeeded by capsules or heads as large as oranges, each containing about 8000 seeds.

We are told, that in the province of Bahar in the East Indies, the poppy-seeds are sown in the months of October and November, at about eight inches distance, and well watered, till the plants are about half a foot high, when a compost of dung, nitrous earth, and ashes, is spread over the areas; and a little before the flowers appear, they are again watered profusely till the capsules are half grown, at which time the opium is collected; for when fully ripe, they yield but little juice: two longitudinal incisions from below upwards, without penetrating the cavity, are made at sunset for three or four successive evenings; in the morning the juice is scraped off with an iron scoop, and

Pap,
Papaver.Camden's
Britannia,
Gough's
edit.Plate
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Papaver. and worked in an iron pot in the sun's heat till it is of a consistence to be formed into thick cakes of about four pounds weight; these are covered over with the leaves of poppy, tobacco, or some other vegetable, to prevent their sticking together, and in this situation they are dried.

The somniferous quality of the white poppy is well known. This quality resides in the milky juice of the capsule containing the seeds, nor is it evaporated by drying the juice; hence the dried capsules are preserved in the shops for making the syrup. The inspissated juice itself is a kind of opium; and for an account of its virtues see the article *OPIMUM*. The seeds also make a very agreeable emulsion, but have no soporific virtue.

Woodville's
Medical Botany.

It grows in England, generally in neglected gardens, or uncultivated rich grounds, and flowers in July and August. This species is said to have been named *white poppy* from the whiteness of its seeds; a variety of it, however, is well known to produce black seeds; the double-flowered white poppy is also another variety: but for medicinal purposes, any of these may be employed indiscriminately, as we are not able to discover the least difference in their sensible qualities or effects. The seeds, according to some authors, possess a narcotic power; but there is no foundation for this opinion: they consist of a simple farinaceous matter, united with a bland oil, and in many countries are eaten as food. As a medicine, they have been usually given in the form of emulsion, in catarrhs, stranguries, &c. The heads or capsules of the poppy, which are directed for use in the pharmacopœias, like the stalks and leaves, have an unpleasant smell, somewhat like that of opium, and an acrid bitterish taste. Both the smell and taste reside in a milky juice, which more especially abounds in the cortical part of the capsules, and in its concrete state constitutes the officinal opium. These capsules are powerfully narcotic or anodyne; boiled in water, they impart to the menstruum their narcotic juice, together with the other juices which they have in common with vegetable matters in general. The liquor, strongly pressed out, suffered to settle, clarified with whites of eggs, and evaporated to a due consistence, yields an extract which is about one-fifth or one-sixth of the weight of the heads. This possesses the virtues of opium, but requires to be given in double its dose to answer the same intention, which it is said to perform without occasioning a nausea and giddiness, the usual effects of opium. This extract was first recommended by

Mr Arnot; and a similar one is now received in the Edinburgh Pharmacopœia. It is found very convenient to prepare the syrup from this extract, by dissolving one dram in two pounds and a half of simple syrup. The *syrupus papaveris albi*, as directed by both colleges, is a useful anodyne, and often succeeds in procuring sleep, where opium fails; it is more especially adapted to children. White poppy heads are also used externally in fomentations, either alone, or more frequently added to the decoction *pro fomento*.

2. The rheas, or wild globular-headed poppy, rises with an upright, hairy, multiflorous stalk, branching a foot and an half high; garnished with long, pinnatifid, deeply cut, hairy leaves; the stalk terminated by many red and other coloured flowers in the varieties, succeeded by globular smooth capsules.

This plant is common in corn-fields, and flowers in June and July. It may be distinguished from *p. dubium*, to which it bears a general resemblance, by its urn-shaped capsules, and by the hairs upon the peduncles standing in a horizontal direction. The capsules of this species, like those of somniferum, contain a milky juice, of a narcotic quality, but the quantity is very inconsiderable, and has not been applied to any medical purpose; but an extract prepared from them has been successfully employed as a sedative. The flowers have somewhat of the smell of opium, and a mucilaginous taste, accompanied with a slight degree of bitterness. A syrup of these flowers is directed in the London Pharmacopœia, which has been thought useful as an anodyne and pectoral, and is therefore prescribed in coughs and catarrhal affections; but it seems valued rather for the beauty of its colour than for its virtues as a medicine.

3. The Cambricum, or Welsh poppy, has a perennial root, pinnated cut leaves, smooth, upright, multiflorous stalks, a foot and an half high; garnished with small pinnated leaves, and terminated by many large yellow flowers, succeeded by smooth capsules.—The flowers appear in June.

4. The orientalis, or oriental poppy, hath a large, thick, perennial root; long, pinnated, sawed leaves; upright, rough, uniflorous stalks, terminated by one deep red flower, succeeded by oval, smooth, capsules. The flowers appearing in May.

Propagation. All the kinds are hardy, and will prosper anywhere. The two first species being annual, are to be propagated only by seeds; but the two last by parting the roots as well as the seeds.

PAPAW, or PAPA-TREE. See *CARICA*.

Papaver,
Papaw.

Plate
CCCLXXIII.

Woodville

P A P E R.

PAPER is a word evidently derived from the Greek *παπυρος papyrus*, the name of that celebrated Egyptian plant which was so much used by the ancients in all kinds of writing. It would be unnecessary particularly to describe the different expedients which men in every age and country have employed for giving stability to their ideas, and for handing them down to their children. When the art of writing was once discovered, stones, bricks, leaves of trees, the exterior and

interior bark, plates of lead, wood, wax, and ivory, were employed. In the progress of society, men have invented the Egyptian paper, paper of cotton, paper manufactured from the bark of trees, and in our times from old rags.

The inhabitants of Ceylon, before the Dutch made themselves masters of the island, wrote on the leaves of the talipot. The manuscript of the bramins, sent to Oxford from Fort St George, is written on the leaves

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of a palm of Malabar. Herman speaks of another palm in the mountains of that country which produces leaves of several feet in breadth. Ray, in his History of Plants, Vol. II. Book xxxii. mentions some trees both in India and America, the leaves of which are proper for writing. From the interior substance of these leaves they draw a whitish membrane, large, and somewhat like the pellicle of an egg; but the paper made by art, even of the coarsest materials, is much more convenient in use than any of these leaves.

The Siamese, for example, make two kinds of paper, the one black and the other white, from the bark of a tree which they call *Pliokkloi*. These are fabricated in the coarsest manner; but they can be used on both sides with a bodkin of fullers earth.

The nations beyond the Ganges make their paper of the bark of many trees. The other Asiatic nations within the Ganges, excepting those toward the south, make it of old rags of cotton cloth; but from their ignorance of the proper method, and the necessary machinery, their paper is coarse. This, however, is by no means the case with that made in China and Japan, which deserves attention from the beauty, the regularity, the strength, and fineness of its texture. In Europe they have discovered, or rather carried to perfection, the ingenious art of making paper with old rags, originally either from flax or hemp; and since this discovery the paper produced from our manufactures is sufficient for every purpose. And though these materials have been hitherto abundant, several philosophers have attempted to substitute other vegetable substances in their place. In the 6th volume of the Transactions of the Society for the Encouragement of Arts, we have an account of paper made by Mr Greeves near Warrington from the bark of willow-twigs; and it has been observed by a society of able critics, that hop-buds would probably answer this purpose better. The rags in common use for paper-making are a texture of supple and strong fibres separated by a lee from the bark of the plants. It would be in vain to employ the whole body of the plant, as this substance forms a very improper stuff for the operations of the paper-mill. From these principles we are directed in the choice of vegetable substances fit for the present purpose. The greater or less degree of purity in the materials is not absolutely necessary; for flax itself, without any preparation, could be made into paper; but it would be extremely coarse, and the bark of nettles or malloes would not bear the expence of labour. Although cotton be used in the fabrication of paper in the Levant, and perhaps in China, we are not to conclude that the down of plants in Europe, without the strength or suppleness of cotton, will answer the same purpose.

HISTORY.

THE chief kinds of paper which merit attention in this work are, 1. The Egyptian paper; 2. The paper made from cotton; 3. Paper from the interior bark of trees or liber; 4. Chinese paper; 5. Japanese paper; 6. Paper made from asbest; and, 7. Paper made from linen rags.

1
Egyptian
paper.

This is the famous paper used by the ancients, which was made of a kind of reed called *papyrus*,

growing in Egypt on the banks of the Nile. According to Isidorus, this paper was first used at Memphis, and Lucan seems to be of the same opinion,

Nondum flamineas Memphis connexere biblos

Noverat.

PHARSAL. lib. iii. ver. 222.

Whatever truth may be in this, it is certain, that of all the kinds of paper used by the ancients, the papyrus was the most convenient, both from its flexibility and from the ease of fabrication. It was a present from nature, and required neither care nor culture.

It is not certain at what particular period the ancients began to make paper of papyrus; but there are several authorities which prove the use of it in Egypt long before the time of Alexander the Great.

Pliny, lib. xiii. cap. 11. gives a full description of the method of making this paper in Egypt. They divide, says he, with a kind of needle the stem of the papyrus into thin plates or slender pellicles, each of them as large as the plant will admit. These are the elements of which the sheets of paper are composed. The pellicles in the centre are the best; and they diminish in value as they depart from it. As they were separated from the reed, they were extended on a table, and laid across each other at right angles. In this state they were moistened by the water of the Nile, and while wet were put under a press, and afterwards exposed to the rays of the sun. "It was supposed that the water of the Nile* had a gummy quality necessary* *Pliny, lib. xiii. c. 12.* to glue these stripes together. This, says Mr Bruce, we may be assured is without foundation, no such quality being found in the water of the Nile; on the contrary, I found it of all others the most improper, till it had settled and was absolutely divested of all the earth gathered in its turbid state. I made several pieces of this paper both in Abyssinia and Egypt; and it appears to me, that the sugar or sweetness with which the whole juice of this plant is impregnated, is the matter that causes the adhesion of these stripes together; and that the use of the water is no more than to dissolve this, and put it perfectly and equally in fusion." When there was not enough of sugar in the plant, or when the water did not sufficiently dissolve it, the pellicles were united by a paste made of the finest wheat flour, mixed with hot water and a little vinegar, and when dried they were flattened and smoothed by the beating of a mallet.

The size of this paper varied much; it seldom exceeded two feet, but it was oftentimes smaller. It had different names, according to its size and quality: The first was called *Imperial*, which was of the finest and largest kind, and was used for writing letters by the great men amongst the Romans. The second sort was called by the Romans the *Livian* paper, from Livia the wife of Augustus; each leaf of this kind was 12 inches. The third sort was called the *Sacerdotal* paper, and was 11 inches in size.

The paper used in the amphitheatres was of the dimensions of nine inches. But what was esteemed of greatest value in it, was its strength, whiteness, and polish. The ink, however, sunk less in paper highly polished; and therefore the characters were more liable to be effaced. When it was not carefully soaked in the first preparation, the paper brought a less price; because

Panorpa.



Papaver Rhoeas.



Papaver Somniferum.



because letters were with difficulty formed upon it, and it sent forth a disagreeable smell. To remedy this defect, the paper went through a new course of sizing and hammering; and the size used on that occasion was made of light bread steeped in boiling water, and passed through a filtering cloth. By this means the paper became in the highest degree united, and smoother than the finest linen. It was this paper which gave so long a duration to the works of the Gracchi, Tiberius, and Caius, in their own hand-writing. "I have seen them (says Pliny) in the library of Pomponius Secundus, a poet and citizen of the first rank, near 200 years after they were written." We may add, that manuscripts of this paper still remain, which have undoubtedly been written 1000 or 1200 years ago. It appears from Pliny, that the Egyptians pasted together the pellicles of the papyrus by means of the water of the Nile; but that the polishing with ivory, and the operations of the hammer and the press, were added by the invention and industry of the Roman artists. The Egyptians seem to have known the use of size; but it is evident from the same author, that the Romans used a stronger size in the making of paper. Notwithstanding the care which was taken to give strength and consistency to the paper of Egypt, the leaves, although collected into a book, were too weak to support themselves; and for this reason it was a common practice, after every five leaves, to insert a leaf of parchment. There still remains in the abbey de St Germain de-pres a fragment of the epistles of St Augustine written in this manner. The manuscript is at least 1100 years old, and in a high state of preservation.

This paper was an important branch of commerce to the Egyptians, which continued to increase towards the end of the Roman republic, and became still more extensive in the reign of Augustus. The demand from foreign nations was often so great, as to occasion a scarcity at Rome; and we read in the reign of Tiberius of a tumult among the people in consequence of this scarcity. In a letter of the Emperor Adrian, the preparing of the papyrus is mentioned as one of the principal occupations at Alexandria. "In this rich and opulent city (says he) nobody is seen idle: Some are employed in the manufactory of cloth, some in that of writing paper," &c. During the time of the Antonines, this commerce continued equally to flourish. Apuleius says, that he wrote on the paper of Egypt with a reed of the Nile prepared at Memphis.

The demand for this paper was so great towards the end of the third century, that when the tyrant Firmus conquered Egypt, he boasted that he had seized as much paper and size as would support his whole army.

St Jerom informs us, that it was as much in use in the fifth century when he flourished. The duty on the importation of this commodity had grown excessive towards the end of this or the beginning of the sixth century; and being abolished by Theodoric king of Italy, Cassiodorus, in the 38th letter of his 11th book, congratulates the whole world on the discharge of an impost on a merchandise so essentially necessary to mankind.

The fathers Montfaucon and Mabillon mention several fragments written on this paper in the sixth cen-

tury. One of them was a charter of the Emperor Justinian, intitled, *Charta plenaria securitatis*. Father Montfaucon saw in 1698, in the library of Julio Justiniani, three or four fragments of paper of Egypt of the same antiquity. And Mabillon speaks of some books of the Jewish antiquities by Josephus translated into Latin, which seemed to have been written in the same century, and which were preserved in the library of St Ambrose of Milan, but he had not seen the manuscripts. The same father mentions to have seen in the library of St Martin of Tours the remains of an old Greek manuscript of the paper of Egypt, and which appeared to him to be of the seventh century. He also believes, that the copy of St Mark's gospel preserved in the register-office of Venice is written on the same paper, that it is the most ancient of any of the evangelical manuscripts, and may be supposed to be written at the latest in the fourth century.

According to the same antiquarian, the paper of Egypt was used in France, and Italy, and other European countries, both for books of learning and public records; and there still remains, adds he, a great number of these in the archives of the church at St Dennis, at Corbie, in the abbey de Grasse, and in other convents.

It is probable, that the invention of paper made of cotton, of which we are afterwards to treat, insensibly destroyed the reputation and manufacture of the paper of Egypt; but it is still a question at what particular period the fabrication of the latter totally ceased. Eustachius, the learned commentator on Homer, assures us, that in his time in 1170 it was no longer in use; but father Mabillon maintains, that many of the popish bulls were written on the papyrus in the 11th century.

The Count Maffei, in his *Istor Diplomat.* lib. ii. *Biblioth. Ital.* tom. ii. p. 251. is decidedly of opinion, that the paper of Egypt was not in use in the fifth century. He considers all records written on this paper dated posterior to this period as not authentic; and the popish bulls mentioned by father Mabillon appear to this learned person, as well as the copy of St Mark's gospel, to be written on paper manufactured from cotton. To reconcile in some measure these contradictory accounts, it may be observed, that on some particular occasion, and by some particular persons, the paper of Egypt might have been employed for several hundred years after it ceased to be of general use. Whoever wishes for a fuller account of the paper of Egypt, may consult among the ancients Pliny, lib. xiii. and Theophrastus, lib. iv. chap. ix. and among the moderns, Guillaudinus, Scaliger, Saumaïse, Kerchmayer, Nigrifoli; Father Hardouin in his edition of Pliny; Father Mabillon in his work *De re Diplomat*; Montfaucon in his *Paleography*, and in his *Collections*; the illustrious Maffei in his *Istor. Diplomat.* the Count de Caylus in the *Memoirs of the Academy of Inscriptions*; and Mr Bruce in his *Travels to discover the Source of the Nile*.

It is generally supposed that the invention of the paper, called *charta bombycina*, supplanted the Egyptian paper in Greece. This paper is incomparably more lasting, and better calculated for all the purposes of writing. It is not precisely known at what period this art, which supposes a great variety of previous expe-

2.
Paper
made from
cotton.

experiments, was first reduced to practice. The application of cotton to the purposes of paper-making requires as much labour and ingenuity as the use of linen rags; and for this reason, if we could determine the precise time when paper was made from cotton, we should also fix the invention of the art of paper-making as it is presently practised in Europe. Father Montfaucon proves, by incontestable authorities, that paper from cotton was in use in 1100. This paper in the Greek language is called χαρτης βυμβυκινος, or βαμβακινος; for although βυμβυξ is the Greek word for silk, yet in those times it was applied, as well as βαμβαξ, to cotton; and hence the Italians to this day call cotton *bambaccio*.

The most ancient manuscript of this paper which Father Montfaucon saw with the date, was that in the French king's library, written A. D. 1050; but as the manuscripts without date are infinitely more numerous than those which are dated, and as some conjecture can be formed concerning them from the manner of writing, this father believes some of these to have been written in the tenth century.

The researches of the same learned antiquarian amount almost to a proof that this paper was discovered towards the end of the ninth century or beginning of the tenth; for before the twelfth century it was commonly used in the eastern empire, and even in Sicily. Roger king of Sicily says, in a diploma written in 1145, that he had renewed on parchment a charter which had been written on paper of cotton, in the year 1100, and another which was dated in the year 1112. About the same time the empress Irene, in the statutes for some religious houses at Constantinople, says that she had left three copies of the same statutes, two in parchment and one in paper from cotton. From that period this paper was still more in use through all the eastern empire; and innumerable Greek manuscripts are found written on it in all the great libraries.

This discovery happened at a time when there seems to have been a great scarcity of parchment; for it was about this period that the Greeks erased the writings of Polybius, Diodorus of Sicily, and many valuable ancient authors, for the sake of the parchment.

It was the invention of this paper of cotton which destroyed the manufacture of the paper of Egypt; for, if we may believe Eustathius, who wrote towards the end of the twelfth century, the latter paper had gone into disuse but a little before his time. We may easily believe, however, that this new invention, although of great advantage to mankind, was introduced by degrees.

The manufacture of this kind of paper has flourished in the Levant for many ages, and is carried on with great success even to this day. It is not necessary to say any thing farther, than that the paper produced from cotton is extremely white, very strong, and of a fine grain.

3
Paper from
the interior
bark of
trees or
liber.

This paper of the ancients was made from the white pellicle or inner coat found in many trees between the bark and the wood. The trees commonly in use were the maple, the plane-tree, the elm, the beech, the mulberry, and most frequently the linden-tree. The ancients wrote on this inner coat after they had separated it from the bark, beat, and dried it.

Nº 258.

The fathers Mabillon and Montfaucon speak frequently of manuscripts and diplomas written on paper made from bark; and positively distinguish it from the Egyptian paper, because it was thicker, and composed of parts less adhering together.

There are many palm trees in India and America to which botanists have given the name *papyraceous*, because the natives have written with bodkins either on the leaves or the bark. Such is the American palm, called *tal* by the Indians; and of the same kind is the guajarába of New Spain. Every palm, the bark of which is smooth, and the leaves large and thick, may be used for this purpose.

The art of making paper from vegetables reduced to stuff was known in China long before it was practised in Europe; and the Chinese have carried it to a degree of perfection hitherto unknown to the European artists. The fine paper in China is softer and smoother than that of Europe; and these qualities are admirably adapted to the pencil, which the Chinese use in writing. Several kinds of their paper discover the greatest art and ingenuity, and might be applied with much advantage to many purposes. They are capable of receiving, for example, the impression of types; and both maps and prints have been executed with success on the Chinese paper.

The different sorts of paper vary in China according to the materials of which they are composed, and to the different manner of manufacturing those materials. Every province has its peculiar paper. That of Se-chwen is made of linen rags as in Europe; that of Fo-kion, of young bamboo; that of the northern provinces, of the interior bark of the mulberry; that of the province of Kiang-nan, of the skin which is found in the webs of the silk-worm; finally, in the province of Hu-quang, the tree chu or ko-chu furnishes the materials with which they make paper.

The method of fabricating paper with the bark of different trees is nearly the same with that which is followed in the bamboo. To give an idea, therefore, of the manner of manufacturing the interior barks of the mulberry, the elm, and the cotton-tree, it will be sufficient to confine our observations to the bamboo.

The bamboo is a kind of cane or hollow reed, divided by knots; but larger, more elastic, and durable than any other reed.

The whole substance of the bamboo, composed of filaments, and a great abundance of fibrous materials, is employed in this operation. The shoots of one or two years, nearly the thickness of a man's leg, are preferred. They strip the leaves from the stem, cut them into pieces of four or five feet long, make them into parcels, and put them into water to macerate. As soon as they are softened, which generally happens in five days; they wash them in pure water; put them into a dry ditch; cover them with lime for some days, which they water for the purpose of slacking: they wash them carefully a second time; cut every one of the pieces into filaments, which they expose to the rays of the sun to dry and to bleach them. After this they are boiled in large kettles; and then reduced to stuff in mortars of wood, by means of a hammer with a long handle, which the workman moves with his foot.

The stuff being thus prepared, they take some shoots of

of a plant named *koteng*, which, steeped in water four or five days, is reduced to an unctuous or glutinous substance; and when they proceed to make the paper, this is mixed with the stuff in certain exact quantities, for on this mixture depends the goodness of the paper.

When the extract from the *koteng* is mixed with stuff of the bamboo, the whole mixture is beat together in mortars till it becomes a thick and viscous liquor. This is poured into large tubs or reservoirs, so exactly framed as that no part of the liquor can escape.

The workmen after this plunge their forms into the liquor; take out what is sufficient for a sheet of paper; which immediately, from the glutinous substance, becomes firm and shining; and is detached from the form by turning down the sheet on the heap of paper already made, without the interposition of pieces of woollen cloth, as in Europe.

In order to dry this paper, they have a hollow wall, the two fronts of which are smooth and extremely white. At the extremity of this wall is placed a stove, the pipes of which are carried in a circular manner through the whole empty space. The sheets of paper are laid on the surface, to which they adhere till they come over them with a soft brush; and after they are dry, it is easy to distinguish the side which received impressions from the brush from that which adhered to the wall. By means of this stove the Chinese dry their paper as fast as they can make it; but it is only in cold seasons, or in certain provinces, that they find this expedient necessary.

The Chinese paper must be dipped in a solution of alum before it can take either ink or colours. They call this operation *faner*, from the Chinese word *fan*, which signifies alum. The following is the manner of preparing this solution: Six ounces of isinglass cut very small is put into boiling water, and constantly stirred, that it may dissolve equally. When the isinglass is wholly dissolved in the water, they throw in twelve ounces of calcined alum, which is also stirred till it is completely dissolved and mixed with the isinglass. This composition is afterwards poured into a large and deep basin, at the mouth of which is a little round piece of wood; the extremity of every sheet of paper is fixed in another piece of wood, with a slit made to receive it; by means of this equipage they plunge the sheet of paper into the composition of alum and isinglass; and when it is fully penetrated, they draw it out, making it glide over the little round piece of wood. The long piece of wood which holds the sheet by one end, and keeps it from tearing, is afterwards suspended with it on a wall till it is sufficiently dry.

The Chinese give the paper intended for different purposes different preparations. We shall confine our observations to the silver colour which they give to some paper. They take two scruples of paste made of cows hide, one scruple of alum, and a pint of water: the whole is boiled on a slow fire till the water be evaporated. The sheets of paper are then stretched on a smooth table, and covered over with two or three layers of this paste. They take afterwards a certain quantity of talc, washed and boiled in water, with the proportion of one-third of alum; this is dried, reduced

to a powder, passed through a sieve, boiled a second time in water, dried in the sun, and again passed through the sieve. This powder is spread equally over the sheets of paper, prepared as we mentioned above; and then they are dried slowly in the shade.

The sheets of paper, covered in this manner with talc, are laid upon a table, and rubbed with a little cotton; which fixes a certain quantity of the talc in the paper, and carries off the overplus to be used on another occasion. By means of this composition the Chinese draw all manner of figures on their paper.

Formerly the Chinese wrote with a bodkin of iron on tablets of bamboo; afterwards on satin with a pencil; and during the dynasty of their tyrants, about 160 years before Christ, they discovered the art of making paper.

The paper made from the bamboo is sufficiently white, soft, closely united, without the least inequality on the surface to interrupt the motion of the pencil, or to occasion the rising of the materials which compose it. Meanwhile every kind of paper made from the bamboo or the bark of trees, is readier to crack than that made in Europe; besides, it is more susceptible of moisture, and sooner destroyed with dust and worms. To obviate this last inconvenience, they are obliged frequently to beat their books in China, and to expose them to the sun. It may be observed, however, that the Chinese paper, employed for various purposes in Europe, has been preserved for a long time without receiving damage either from moisture or insects.

According to Kempfer, the bark of the *morus papifera sativa*, or true paper-tree, is chiefly employed for making paper in Japan. Every year after the fall of the leaves, which happens in the tenth month, corresponding to our December, the Japanese cut the young shoots of this tree into pieces of about three feet, collect them into parcels, which they boil in water into which they have cast a certain quantity of ashes. If the wood is dry, they take care to steep it 23 hours in water before it is boiled. The parcels are kept in a close copper till the bark at the extremity of the shoots is separated from the stem about half an inch; they are then cooled; and the bark alone is fit for making paper. They begin by a preparation which consists of cleaning the bark, and separating the good from the bad. For this purpose they steep it in water three or four hours; and as soon as it is softened they scrape off with a knife whatever is blackish or green, and at the same time separate the strong bark of a year's growth from the slender which covers the young shoots. The first of these gives the whitest and best paper. If there is any of the bark of more than a year's growth, it is laid aside for the coarsest.

After the bark has been culled and cleaned in this manner, it is boiled in a clear ley till the matter is of that consistency, that, being touched gently with the finger, it draws off in the form of hairs, or like a collection of fibres. During the time of boiling it is constantly stirred with a strong reed, and the waste by evaporation supplied from time to time with additional quantities of the clear ley. To make this ley, they put two pieces of wood across the mouth of a tub, cover them with straw, on which they lay a bed

of ashes a little moistened; and pouring boiling water on the ashes, the salts contained in them are carried down to the tub. This is what is called a *clear ley*.

After the bark is in the condition we have just now stated, it is washed with great care; for on this washing depends in a great measure the goodness of the paper. It is put into a kind of sieve through which the water can flow freely; and great care is taken to turn it with the hand till it is sufficiently diluted, and reduced to soft and tender fibres. For the finest paper a second washing is requisite, and a piece of cloth is used instead of a sieve.

When the bark is washed, it is laid on a strong and smooth table, and beat with a kind of baton of hard wood till it is reduced to a proper consistency. It becomes indeed so soft, that it resembles paper steeped in water.

The bark prepared in this manner is put into a narrow tub, with a glutinous extract from rice and the root *oreni*, which is very viscous. These three substances, mixed together, are stirred with the reed till they form a liquor of an equal and uniform consistency. This composition is poured into tubs similar to those used for filling the forms in our paper-mills.

As soon as the sheets are made and detached from the form, they are laid in a heap on a table covered with a double mat. A small chip of cane is placed betwixt every sheet. This piece of cane jutting out, serves to distinguish the sheets, and afterwards to raise them. Every one of the heaps is covered with a plate or thin board of the exact size of the paper. In proportion as the paper dries, or is able to bear it without danger of being compressed into one mass, they lay on additional weights. This pressure, intended to carry off any unnecessary moisture, is continued for 24 hours, when the sheets are suspended, by means of the little piece of reed, to long plants, in the open air, till they are completely dried.

The extract from rice is made in an unvarnished earthen pot. The pot is agitated at first gently, then more briskly: new water is poured in, and then it is filtered through a linen-cloth. The finishing of the process is determined by the viscosity of the substance.

The infusion of the root *oreni* is made in the following manner: The root, peeled and cut into small pieces, is infused into water for one night, during which time it communicates a viscosity sufficient for the purpose to which it is applied.

The Japanese paper is of so prodigious a strength, that the materials of which it is composed might be manufactured into ropes. There is sold at Serige, the capital city of the province of Japan of that name, a kind of it fit for bed-hangings and wearing apparel; resembling so much stuffs of wool and silk, that it is often taken for them. The following is Kempfer's catalogue of trees used in Japan for the manufactory of paper. 1. The true paper-tree, called in the Japanese language *kaadsi*, Kempfer characterizes thus: *Papyrus fructu mori celsæ, sive morus sativa foliis urticae mortuæ cortice papifera* 2. The false paper-tree, called by the Japanese *katsi kadsire*; by Kempfer, *papyrus procumbens lætescens folio longo lanceata cortice chartaceo*. 3. The plant which the Japanese call *oreni* is named by Kempfer *alva radice viscosa flore ephemero magno pu-*

nico. 4. The fourth tree used for paper is the *futo-kadsura*, named by Kempfer *frutex viscosus procumbens folio telephii vulgaris æmulo fructu racemoso*.

The description of these trees, given more particularly by Kempfer than the limits of this work will permit, may be of great service to lead botanists to discover the European plants and shrubs adapted, like the Japanese, for the fabrication of paper.

Before finishing our reflections on this part of the subject, it will be proper to give a just idea of the attempts which have been made to increase the original materials of paper in Europe.

A slight attention to the process in China in reducing the bamboo to a paste, by a careful and ingenious analysis, and to the long and proper method of the Japanese of separating the principal fibres of the bark of the mulberry, will show the absurdity not only of taking plants without any kind of choice, but of giving them no preparation except that of pounding them with mallets.

With a proper selection, and good principles, it appears not improbable that many of the European plants might be used with great advantage in constructing several kinds of paper.

It is evident that the materials used by the Chinese require less labour and preparation than the stuff of linen rags. The sheets of the Chinese paper are easily detached from the form; they are laid in heaps without the interposition of pieces of woollen cloth: the superfluous water is immediately discharged; and they require not, as in Europe, the vigorous action of presses to unite the parts more closely together.

The asbestos is a fibrous substance of little strength, the threads of which are easily broken. This substance has the peculiar quality of supporting the action of fire without receiving any damage; whence pieces of cloth and garters made of it are incombustible. From the knowledge of this property paper has been made of the asbestos. Dr Brukmann, professor at Brunswic, published the natural history of this fossil; and four copies of his book, in the library of Wolfenbottle, are on this paper.

The manner of fabricating this paper is described by M. Lloyd in the Philosophical Transactions, N° 166. A certain quantity of the asbestos is pounded in a mortar of stone till it be reduced to a substance like cotton. All the parts of earth or stone remaining in the asbestos are then taken off by means of a fine sieve, and it is formed into sheets of paper by an ordinary paper-mill. Mixing it with water reduces it to stuff; only, as it is heavier than that from linen rags, it requires to be continually stirred when they are taking it up with the frames. The only excellence of this paper is, that the writing disappears when it is cast into the fire. It must be observed, at the same time, that as it is of a slender consistency, and easily torn, it is more an object of curiosity than use.

This paper is manufactured through all Europe of linen rags collected in the cities and in the country. This kind of paper was utterly unknown to the ancients. The *libri lintei* mentioned by Livy, l. lib. iv. Pliny, XIII. c. xi. and by other Roman writers, are demonstrated by Guilandin, in his commentary on Pliny, &c. to have been written on pieces of linen cloth, or canvass prepared in the manner of painters.

But

But it is not sufficient to be certain that paper from linen is a modern invention; it is necessary to know by what nation, and at what period, it was discovered. Polydore Virgil, *De Inventoribus Rerum*, C. II. c. viii. confesses his ignorance of these facts. Scaliger, without any kind of proof, gives the glory to the Germans; and Count Maffei to the Italians. Other writers ascribe this honour to some Greek refugees at Basil, to whom the manner of making paper from cotton in their own country had suggested the idea. Du Halde is persuaded that Europe derived this invention from the Chinese, who, in several provinces, make paper of rags nearly in the same manner that we do. But this invention was practised by the Europeans before they had any communication with China, and before the taking of Constantinople, at which time the Greek refugees were supposed to have retired to Basil. The precise time of this discovery in Europe is not exactly known. Father Mabillon believes that it was in the twelfth century; and cites a passage of Pierre de Clugny, born A. D. 1100, to prove it. The books which we read every day, says that Abbé in his treatise against the Jews, are written on sheeps and calfs skin; or on oriental plants; or, finally, *ex rasuris veterum pannorum*. If these last words signify paper, such as we use, there were books of it in the twelfth century. But this citation is the more to be suspected, as Montfaucon himself, after the minutest search in France and Italy, could find no book on this paper antecedent to the death of St Louis, A. D. 1270.

The epocha of this invention was not determined till 1762, M. Mierman having proposed a reward to the person who could procure the most ancient manuscript written on this kind of paper. The collection of all the memoirs sent to him along with the manuscripts was published at the Hague in 1767; and it appeared that this paper had been used in Europe before the year 1300.

In 1782 the Abbé Andrez published a work intitled *Dell' Origine, Progressi e Stato attuale d' Ogni letteratura*; wherein he speaks of the discovery of many kinds of paper, and particularly of that made of rags. The Abbé Andrez maintains, that paper made from silk was very anciently fabricated in China, and in the eastern parts of Asia; that the art of making this paper was carried from China to Persia about the year 652, and to Mecca in 706. The Arabs substituted cotton, the commodity of their own country, in place of silk, or rather bamboo. This paper of cotton was carried into Africa and Spain by the Arabs. The Spaniards, from the quantity of linen to be found in the kingdom of Valencia, seem first to have adopted the idea of using linen rags; and the most ancient paper of this kind is of Valencia and Catalonia. From Spain it passed into France, as may be learned from a letter of Joinville to St Louis about the year 1260. It is discovered to have been in Germany in 1312, and in England in 1320 and 1342. In consequence of the paper made from cotton in the Levant, the paper from linen was introduced much later into Italy. See the work of Abbé Andrez, printed at Parma, 1782, in 8vo; and Mierman's Collection, published at the Hague, 176

SECT. I. Art of Making Paper in Europe.

To give a concise view of this subject, it will be necessary to proceed with all the important parts of the operation in their order.

The selection of the rags, is the arranging of them into different lots, according to their quality and to the demand of the paper-mill. In general this selection is very much neglected: The degrees of fineness and whiteness, distinguished with little care, are thought to be the only objects of importance; whereas the hardness and softness, the being more or less worn, are much more essential in this selection. It is certain, that a mixture of soft and hard rags occasions much more loss in the trituration than a difference in point of fineness or of colour. This exactness in the selection is still more necessary where cylinders are used instead of mallets. We cannot do better than to give the method practised in Holland as worthy of imitation.

They begin by a general separation of the rags into four lots; superfine, fine, middle, and coarse. These lots are given to selectors, who subdivide each of them into five chests. They have besides a bench, on which is fixed vertically a hook, and a piece of scythe which is terminated by a crooked point.

The person, for example, who has the charge of the fine lot, puts into one of the chests the hard rags, or those which are little used, into another the soft, into a third the dirty, into a fourth those which are stitched or hemmed, and, finally, into the fifth the superfine rags which happen to be among the fine.

After this process, the women who have the charge of it are at extreme pains to pick out every kind of sewing, and especially the knots of thread and the hems, by means of the hook or scythe which they have under their hands. They take care also by the same means to cut and reduce the rags exactly by the warp and the woof into small pieces. It is of great advantage to cut or tear the pieces of rags by a thread, whether it be by the warp or woof; because if it is done obliquely, many of the ends are lost in the operation.

When they have selected a certain quantity of each of these subdivisions, they are placed on an iron grate, which covers a large chest where they are beat, and otherwise turned, till the filth and dust pass through the bars of the grate and fall into the chest.

The number of lots in the selection of rags must be proportioned to the mass from which the selection is made, and to the kinds of paper produced by the mill. Some mills, the work of which is considerable, make nine lots of their rags, five of which respect the fineness, and the rest the cleanness and the colour. In ordinary mills there are only four lots, and in some two.

We have already observed, that the selection which regards the hardness of the materials is the most essential; because it is of great importance to obtain stuff composed of equal parts, and without any loss. But it is necessary to add, that the fineness and beauty of the paper depend in some cases on a selection not rigorous. Thus, for example, it is of great service to

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allow the middle to retain some part of the fine, and the fine some part of the superfine; for without this the inferior kinds of paper can never be of great value. The most common fault is to mix the rags of the inferior lots with the superior; which, though it augments the quantity of paper, is extremely injurious to the quality. It does much better to mix part of the superior lots with the inferior. It is the want of attention to this mixture which makes some paper-mills excel in the superior sorts of paper, while the inferior kinds are of a very bad quality.

The selection of rags being made with exactness, however, and the lots being fermented and triturated separately, the mixture may be made with much greater advantage when they are both reduced to stuff: always taking care that it be in the same proportion as if it were in the state of rags, and only in the manner which we just now mentioned; for the inferior sorts gain more in beauty and quality by this mixture than is lost in stuff; whereas if the fine stuff receives a certain quantity of the inferior, the paper is more damaged in its value than increased in quantity. In this manner the interest of the manufacturer, as in all cases, is intimately connected with the goodness of his commodities.

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The wash-
ing and fer-
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of rags.

In some mills the place for fermentation is divided into two parts, one of which serves for washing away the filth from the rags. After allowing them to steep for some time in a large stone vat, they stir them, and pour in fresh water till the impurities connected with the rags run over. When they are as clean as they possibly can be made by this kind of washing, they are laid in a heap to putrefy. In this condition they experience a degree of fermentation, which is first discovered by a mouldiness of the different pieces of cloth. Afterwards the mass grows warm; and then it is of great consequence to attend to the progress of this heat, in order to moderate its effects: for this purpose, the middle of the heap, where the fermentation is strongest, is turned out, and *vice versa*. In mills where mallets are used, the putrefaction is carried to a great height, which is frequently attended with two inconveniences. The first is, that a part of the rags is reduced to an earthy substance, which is found in great abundance about the cutting-table, as we shall afterwards have occasion to see. But besides this waste, excessive fermentation makes the stuff incapable of sustaining the action of the mallets till it is equally pounded. A paper made from stuff too hard and too little fermented, is coarse and ill compacted; that made from rags too much fermented is composed of fibres without softness and without strength.

The second inconveniency is, that the rags turn greasy by too much fermentation, and of consequence it is very difficult to separate and reduce them by all the washings of the trituration.

We shall not describe the form of the place for fermentation, because in different paper-works these places are of different constructions: it is sufficient to say, that they are all placed in low situations and made very close. The selected rags are placed in them in heaps, and watered from time to time to bring on the fermentation. In different paper-mills they practise different methods in the putrefaction of their rags.

In certain provinces in France, they lay in the place

for putrefaction a heap equivalent to what the mill can triturate in a month. When this is equally and sufficiently moistened by means of moveable pipes, they cover it with an old heap, which has lain a month in a state of fermentation. When this old heap is exhausted by the mill, the new one becomes a covering to another, and so on. From this detail it is easy to perceive, that there must be near three weeks difference of putrefaction in the same heap, and also that in this method there is no allowance for those seasons in which the fermentation advances more rapidly.

In general the putrefaction goes on more slowly in proportion to the fineness of the rags. But when, on any occasion, it advances more rapidly than the demand from the mill, the rags are turned over and watered, to stop the fermentation and prevent the bad effects.

All the inconveniences attending the excess of putrefaction are remedied in Holland by machines which triturate the rags without having recourse to it; and their success in this manner of preparing the stuff has attracted the notice of the French artists, some of whom have adopted with advantage the Dutch machinery.

Meanwhile, it is possible to carry the method of putrefaction to much greater perfection; and several manufacturers have made attempts so well concerted, as to deserve the attention of those who study the subject.

In the neighbourhood of Brussels some paper-manufacturers, who have constructed their mills after the Dutch plan, have still found it necessary to putrefy their rags; but, at the same time, they have an excellent method for moderating the effects of this putrefaction. In the great galleries connected with the buildings of the paper-mill, they have constructed a continuation of chests, capable each of them of containing a certain quantity of rags; for example, the quantity which the cylinder can triturate in one day. The number of chests is equal to the number of days which the rags in any season require for putrefaction; and the number actually employed is greater or less according to the season. In prosecuting this plan, they lay a heap of rags in one chest, as often as they take one from another. It should also be observed, that, for the sake of the fermentation, the rags are first moistened in a large hollow stone before they are arranged into the chests.

The peculiar advantages of this method are, the equal fermentation of the rags, without any part of them being weakened; great ease in washing them; and it is even pretended, that a less degree of fermentation renders the impurities and the discoloured parts both of hemp and linen more soluble, and consequently the stuff of a purer white.

When the rags are reduced to a proper state of putrefaction, they are carried to the cutting table, which is placed on solid treffels, and inclosed on three sides to contain the rags cut on it. Before the table is fixed vertically a part of the blade of a scythe, the edge of which is turned from the operator. This workman, in a situation rather elevated, takes from the left side a handful of the putrefied rags, and arranging them the long way, gives them a gentle twist, presses the half-formed rope against the blade of the scythe, and, in the

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the manner of sawing, cuts it into three or four pieces, which he throws to the right side of the table. In this operation the rags lose part of their filth, and especially of the earthy particles occasioned by too much putrefaction.

When the rags have been submitted to all the foregoing operations, they are in a condition to be reduced into a fibrous stuff, of which the paper is made. To obtain this stuff, mills are constructed on different principles. Those which have been used for a long time over all Europe, and which by a statement in the *Encyclopedie Methodique*, published at Paris in 1789, are still used in France, are mills with mallets. But the mills invented by the Dutch, and used in the neighbouring provinces, and, excepting one instance, in every part of Great Britain, are mills with cylinders or rollers. In the former of these, the mallets are raised by notches fixed at convenient distances in a large circular beam of wood. The teeth fixed on the end of the mallet fall into a corresponding gap made the whole breadth of the plate, and the strokes are repeated till the rags are reduced to a proper consistency. On supplying the vat with water, and carrying off all the impurities, the operation is nearly similar to that in the mills with cylinders.

Such is the nature of what may be called the *old method of making paper*. It was proper to speak of this old method, because at one time, and that not very distant, it universally prevailed. That it was inferior to that now in practice, seems very evident; and that the rotting of the rags was peculiarly absurd, cannot be denied, as the paper made of fermented stuff could neither be so strong nor so durable as that which is made in the common way without putrefaction. The only kind of paper that, with any propriety, could be made from putrefied stuff, was pasteboard; but we are informed by the most intelligent paper-makers in Britain, that they seldom or never even putrefy the rags or ropes of which pasteboard is made. It will now be requisite to state the method presently in practice, with the improvements lately made in the art.

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The duster.

The duster is made in the form of a cylinder, four and an half feet in diameter, and five feet in length. It is altogether covered with a wire net, and put in motion by its connection with some part of the machinery. A convenient quantity of rags before the selection are inclosed in the duster, and the rapidity of its motion separates the dust from them, and forces it through the wire. It is of considerable advantage to use the duster before selection, as it makes that operation less pernicious to the selectors.

The selection is performed much in the same manner as we have already described; only it is found more convenient to have the tables for cutting off the knots and flitching, and for forming them into a proper shape, in the same place with the cutting table. The surface both of these and of the cutting table is composed of a wire net, which in every part of the operation allows the remaining dust and refuse of every kind to escape.

The rags, without any kind of putrefaction, are again carried from the cutting table back to the duster, and from thence to the engine, where, in general, they are in the space of six hours reduced to the stuff proper for making paper. The hard and soft of the same qua-

lity are placed in different lots; but they can be reduced to stuff at the same time, provided the soft be put somewhat later into the engine.

The engine is that part of the mill which performs the whole action of reducing the rags to paste, or, as it may be termed, of trituration. The number of the engines depend on the extent of the paper-work, on the force of water, or on the construction of the machinery.

It will afford a sufficient idea of the work, to give in detail a description of the different parts of the engine. See Plate CCCLXXVI. Figure 1. represents the chapter which covers the roller. It is four feet three inches in length, and two feet eight inches in breadth. The superior part is pierced with two openings running crosswise, 1, 2, 3, 4, into which enter the chasses or wicker-frames, figures 6. and 7.; the first, made of wire-cloth, enters into the opening 3 and 4; the second, made of hair-cloth, and strengthened with several cross-bars of wood, enters into the opening 1, 2, serves to retain the small pieces of rags which escape through the first, and prevents them from falling into the dalot or hole-scupper, fig. 2. This hole-scupper is placed across the vat of the engine, parallel to the axle of the roller; the part *g* enters into the notch *c* of the chapter; and the extremity *b* enters into the opening *k* of the tunnel *kl* (fig. 3.), by which means the water dashed through the wicker-frames by every revolution of the roller, is precipitated into the canal *fb*, and loses itself below the engine. The figures 4, 9, and 10. represent the roller in perspective, in plane, and in profile. It is two feet in diameter, and two feet three inches in length. The trundle head *A* is 16 inches in diameter, about half as much in length, and furnished with seven spindles of iron, which are screwed to the end of the trundle head, made also of iron. The teeth or blades of the roller are 27 in number, and fitted strongly into the wood which composes its body, parallel to its axis. They are of that thickness as to leave as much empty space as they occupy. The exterior face of each of the blades should be made round, and divided into two parts, with a longitudinal motion, as in the profile *a a a*, fig. 10.

The axis *AB* of the roller (fig. 4. and 9.) has two parts perfectly rounded in *A* and in *B*, which perform the office of pivots. These pivots rest in the sockets *A* and *B* (fig. 8.) in the middle of the levers *OAH* and *OBH*. It is by means of these levers that they raise at pleasure, or lower the axis of the roller, and fit it exactly, and in a parallel manner, to the plate. The plates (see fig. 5.) are made of steel cut into channels, in such a manner as to correspond with the blades of the roller. Their channels are not perpendicular, but oblique; and there are two rows of them, *bx*, *xd*, consisting of seven or eight blades each on one plate.—Those in *bx*, for the purpose of changing the plate, lie in an opposite direction to those in *xd*. The levers are kept in their position near the vat by bands of iron, *MN* and *mn*; between which they are made higher or lower by the cogged wheel *H*, which supports one of the extremities. Wedges *Nn* are likewise employed to fix the levers at a convenient height above the plates. Finally, every vat is supplied with a small slide-door, which is occasionally raised to carry the

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Working
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the prepared stuff by means of the scuppers of wood to the general repositories.

Fig. 5. is placed in the vat fig. 8.; the roller (fig. 4.) is placed above it in such a manner that the pivots rest in the sockets of the levers; the scupper (fig. 2.) and the chapter are disposed in the manner above-mentioned. The vat is charged with a proper quantity of rags, and fresh water is admitted by a spigot placed at one of the corners. In this situation, when the engine is put in motion, the roller turning upon its axis draws the water and the rags by the least inclined plane, and making them pass between its blades and the channels of the plate, dashes them against the chapter and the wicker-frames; and, in short, part of them falls back into the vat, and returns into the circulation. The cause of this circulation is evidently the continual void occasioned by the movement of the roller on the one side, and the return of the water and the stuff on the other.

As all the rags are not thrown towards the part *Bd* of the chapter, from whence they might fall back into the vat, but a part of them to a greater distance; it is necessary to have the wicker-frames formerly described, not only to prevent their loss, but to allow the dirty water to escape. The spigot at the corner of the vat continually supplies this waste of water. This operation would be sufficient to whiten the rags, although the rollers were raised considerably from the plate; and therefore the force and action of the rollers reducing them to stuff must be much more effectual. It requires great skill to conduct the engine, whether it be with regard to the first quantity, to the proper time for adding the softer rags, to the augmenting or diminishing the water in proportion to the trituration; or, finally, to knowing exactly when the stuff is reduced to a proper consistency.

In the paper-manufactory at Montargis, it was attempted to introduce rollers of the greatest strength and the least weight possible, in order to give them the greater rapidity; but the experiment did not succeed: the rollers of prodigious rapidity were found to produce stuff neither in greater quantity nor of superior quality. The most experienced artists have established a proportion between the motion of the roller and the greater or less resistance of the rags. And the Dutch, who have arrived at very great perfection in this art, have followed a method totally different from that practised at Montargis. A roller in Holland complete in all its parts weighs nearly 30 hundred weight; and they find this necessary for cutting the rags, especially if they have not been putrefied. In proportioning the rapidity to the resistance, they have also discovered, that a slow motion is preferable to a rapid one. The rollers at Saardom, by calculation made from the different parts of the machinery, make about 68 revolutions in a minute; those at Montargis about 166.—In Holland, too, this trituration of the rags is divided into two distinct operations, performed by rollers constructed on different principles: the first of them, for cutting the rags and preparing for the other, is furnished with blades of steel without any moisture, and with a considerable space between them; the second, intended to reduce the stuff to the proper consistency, has a greater number of blades, composed of a mixture

of brass and copper. The mills with rollers are in every respect superior to those formerly in use with mallets. Two Dutch rollers of the construction we have just now described will prepare as much stuff in the same time as 24 mallets; they require infinitely less room; they do it without putrefaction, and as they do it in less time, and with less water, they occasion much less waste of the stuff.

When the stuff is brought to perfection, it is conveyed into a general repository, which supplies the vat from which the sheets of paper are formed. This vat is made of wood, and generally about five feet in diameter, and two and an half in depth. It is kept in temperature by means of a grate introduced by a hole, and surrounded on the inside of the vat with a case of copper. For fuel to this grate, they use charcoal or wood; and, frequently, to prevent smoke, the wall of the building comes in contact with one part of the vat, and the fire has no communication with the place where they make the paper.

Every vat is furnished on the upper part with planks, inclosed inwards, and even railed in with wood, to prevent any of the stuff from running over in the operation. Across the vat is a plank which they call the *trapan*, pierced with holes at one of the extremities, and resting on the planks which surround the vat.

The forms or moulds are composed of wire-cloth, and a moveable frame. It is with these that they fetch up the stuff from the vat, in order to form the sheets of paper. The sides of the form are made of oak, which is previously steeped in water, and otherwise prepared to prevent warping. The wire-cloth is made larger than the sheet of paper, and the excess of it on all sides is covered with a moveable frame. This frame is necessary to retain the stuff of which the paper is made on the cloth; and it must be exactly adapted to the form, otherwise the edges of the paper will be ragged and badly finished. The wire-cloth of the form is varied in proportion to the fineness of the paper and the nature of the stuff.

The felts are pieces of woollen cloth spread over every sheet of paper, and upon which the sheets are laid, to detach them from the form, to prevent them from adhering together, to imbibe part of the water with which the stuff is charged, and to transmit the whole of it when placed under the action of the press. The two sides of the felt are differently raised: that of which the hair is longest is applied to the sheets which are laid down; and any alteration of this disposition would produce a change in the texture of the paper. The stuff of which the felts are made should be sufficiently strong, in order that it may be stretched exactly on the sheets without forming into folds; and, at the same time, sufficiently pliant to yield in every direction without injury to the wet paper. As the felts have to resist the reiterated efforts of the press, it appears necessary that the warp be very strong, of combed wool, and well twisted. On the other hand, as they have to imbibe a certain quantity of water, and to return it, it is necessary that the woof be of carded wool, and drawn out into a slack thread.—These are the utensils, together with the press, which are used in the apartment where the sheets of paper are formed.

The vat being furnished with a sufficient quantity of

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stuff and of water, two instruments are employed to mix them; the one of which is a simple pole, and the other a pole armed with a piece of board, rounded and full of holes. This operation is repeated as often as the stuff falls to the bottom. In the principal writing mills in England, they use for this purpose what is called a *hog*, which is a machine within the vat that, by means of a small wheel on the outside, is made to turn constantly round, and keep the stuff in perpetual motion. When the stuff and water are properly mixed, it is easy to perceive whether the previous operations have been complete. When the stuff floats close, and in regular flakes, it is a proof that it has been well triturated; and the parts of the rags which have escaped the rollers also appear.

After this operation the workman takes one of the forms, furnished with its frame, by the middle of the short sides, and fixing the frame round the wire-cloth with his thumbs, he plunges it obliquely four or five inches into the vat, beginning by the long side, which is nearest to him. After the immersion he raises it to a level: by these movements he fetches up on the form a sufficient quantity of stuff; and as soon as the form is raised the water escapes through the wire-cloth, and the superfluity of the stuff over the sides of the frame. The fibrous parts of the stuff arrange themselves regularly on the wire cloth of the form, not only in proportion as the water escapes, but also as the workman favours this effect by gently shaking the form. Afterwards, having placed the form on a piece of board, the workman takes off the frame or deckle, and glides this form towards the coucher; who, having previously laid his felt, places it with his left hand in an inclined situation, on a plank fixed on the edge of the vat, and full of holes. During this operation the workman applies his frame, and begins a second sheet. The coucher seizes this instant, takes with his left hand the form, now sufficiently dry, and laying the sheet of paper upon the felt, returns the form by gliding it along the trapan of the vat.

They proceed in this manner, laying alternately a sheet and a felt, till they have made six quires of paper, which is called a *post*; and this they do with such swiftness, that, in many sorts of paper, two men make upwards of 20 posts in a day. When the last sheet of the post is covered with the last felt, the workmen about the vat unite together and submit the whole heap to the action of the press. They begin at first to press it with a middling lever, and afterwards with a lever about fifteen feet in length. After this operation another person separates the sheets of paper from the felts, laying them in a heap; and several of these heaps collected together are again put under the press.

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Grain of
paper.

The stuff which forms a sheet of paper is received, as we have already said, on a form made of wire-cloth, which is more or less fine in proportion to the stuff, and surrounded with a wooden frame, and supported in the middle by many cross bars of wood. In consequence of this construction, it is easy to perceive, that the sheet of paper will take and preserve the impressions of all the pieces which compose the form, and of the empty spaces between them.

The traces of the wire-cloth are evidently perceived on the side of the sheet which was attached to the

form, and on the opposite side they form an assemblage of parallel and rounded risings. As in the paper which is most highly finished the regularity of these impressions is still visible, it is evident that all the operations to which it is submitted have chiefly in view to soften these impressions without destroying them. It is of consequence, therefore, to attend to the combination of labour which operates on these impressions. The coucher, in turning the form on the felt, flattens a little the rounded eminences which are in relief on one of the surfaces, and occasions at the same time the hollow places made by the wire-cloth to be partly filled up. Meanwhile the effort which is made in detaching the form, produces an infinite number of small hairs on every protuberant part of the sheet.

Under the action of the press, first with the felts and then without them, the perfecting of the grain of paper still goes on. The vestiges of the protuberances made by the wires are altogether flattened, and of consequence the hollows opposite to them disappear also; but the traces formed by the interstices of the wire, in consequence of their thickness, appear on both sides, and are rounded by the press.

The risings traced on each side of the paper, and which can be discovered by the eye on that which is most highly finished, form what is called the *grain of paper*. The different operations ought to soften but not destroy it; which is effectually done by employing the hammer. This grain appears in the Dutch paper; which is a sufficient proof, that though they have brought this part of the art to the greatest perfection, they have not employed hammers, but more simple and ingenious means. The grain of paper is often disfigured by the felts when they are too much used, or when the wool does not cover the thread. In this case, when the paper is submitted to the press, it takes the additional traces of the warp and the woof, and composes a surface extremely irregular.

The paper, the grain of which is highly softened, is much fitter for the purposes of writing than that which is smoothed by the hammer: on the other hand, a coarse and unequal grain very much opposes the movements of the pen; as that which is beat renders them very uncertain. The art of making paper, therefore, should consist in preserving, and at the same time in highly softening, the grain: the Dutch have carried this to the highest perfection.

The exchange succeeds the operation last described. Exchange. It is conducted in a hall contiguous to the vat, supplied with several presses, and with a long table. The workman arranges on this table the paper, newly fabricated, into heaps; each heap containing eight or ten of those last under the press, kept separate by a woollen felt. The press is large enough to receive two of them at once, placed the one at the other's side. When the compression is judged sufficient, the heaps of paper are carried back to the table, and the whole turned sheet by sheet, in such a manner that the surface of every sheet is exposed to a new one; and in this situation they are again brought under the press. It is in conducting these two operations sometimes to four or five times, or as often as the nature of the paper requires, that the perfection of the Dutch plan consists. If the stuff be fine, or the paper slender, the exchange is less frequently repeated. In this operation

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operation it is necessary to alter the situation of the heaps, with regard to one another, every time they are put under the press; and also, as the heaps are highest toward the middle, to place small pieces of felt at the extremities, in order to bring every part of them under an equal pressure. A single man with four or five presses may exchange all the paper produced by two vats, provided the previous pressing at the vats be well performed. The work of the exchange generally lasts about two days on a given quantity of paper.

When the paper has undergone these operations, it is not only softened in the surface, but better felted, and rendered more pliant in the interior parts of the stuff. In short, a great part of the water which it had imbibed in the operation of the vat is dissipated. By the felting of paper is understood the approximation of the fibres of the stuff, and their adhering more closely together. The paper is felted in proportion as the water escapes; and this effect is produced by the management and reiterated action of the press. Were it not for the gradual operation of the press, the paper would be porous and composed of filaments adhering closely together. The superiority of the Dutch over the French paper depends almost entirely on this operation.

If the sheets of paper are found to adhere together, it is a proof that the business of the press has been badly conducted. To avoid this inconveniency, it is necessary to bring down the press at first gently, and by degrees with greater force, and to raise it as suddenly as possible. By this means the water, which is impelled to the sides of the heaps, and which has not yet escaped, returns to the centre; the sheets are equally dry, and the operation executed without difficulty.

According to the state of dryness in which the paper is found when it comes from the apartment of the vat, it is either pressed before or after the first exchange. The operation of the press should be reiterated and managed with great care; otherwise, in the soft state of the paper, there is a danger that its grain and transparency be totally destroyed. Another essential principle to the success of the exchange is, that the grain of the paper be originally well raised. For this purpose the wire-cloth of the Dutch forms is composed of a rounder wire than those used in France, by which they gain the greatest degree of transparency, and are in no danger of destroying the grain. Besides this, the Dutch take care to proportion the wires even where the forms are equal to the thickness of the paper.

Almost every kind of paper is considerably improved by the exchange, and receives a degree of perfection which renders it more agreeable in the use. But it is necessary to observe at the same time, that all papers are not equally susceptible of this melioration; on the contrary, if the stuff be unequal, dry, or weakened by the destruction of the fine parts, it acquires nothing of that lustre and softness, and appearance of velvet, which the exchange gives to stuff properly prepared.

18
Of the drying of paper.

The sheds for drying the paper are in the neighbourhood of the paper-mill; and are furnished with a vast number of cords, on which they hang the sheets N^o 258.

both before and after the sizing. The sheds are surrounded with moveable lattices, to admit a quantity of air sufficient for drying the paper. The cords of the shed are stretched as much as possible; and the paper, four or five sheets of it together, is placed on them by means of a wooden instrument resembling a pick-ax. The principal difficulty in drying the paper, consists in gradually admitting the external air, and in preventing the cords from imbibing moisture. With regard to the first of these, the Dutch use very low sheds, and construct their lattices with great exactness. By this means the Dutch paper is dried equally, and is extremely supple before the sizing. They prevent the cords from imbibing the water by covering them with wax. In using such cords, the moisture does not continue in the line of contact between the paper and the cord, which prevents the sheet from stretching in that particular place by its weight, and from the folds which the moisture in the subsequent operations might occasion. The Dutch also employ cords of considerable thickness, and place fewer of them under the sheets; by which means they diminish the points of contact, and give a freer and more equal circulation to the air.

The size for paper is made of the shreds and pairings got from the tanners, curriers, and parchment-makers. All the putrefied parts and the lime are carefully separated from them, and they are inclosed into a kind of basket, and let down by a rope and pulley into the cauldron. This is a late invention, and serves two valuable purposes. It makes it easy to draw out the pieces of leather when the size is extracted from them by boiling, or easy to return them into the boiler if the operation be not complete. When the substance is sufficiently extracted, it is allowed to settle for some time; and it is twice filtered before it is put into the vessel into which they dip the paper.

Immediately before the operation, a certain quantity of alum is added to the size. The workman takes a handful of the sheets, smoothed and rendered as supple as possible, in his left hand, dips them into the vessel, and holds them separate with his right, that they may equally imbibe the size. After holding them above the vessel for a short space of time, he seizes on the other side with his right hand, and again dips them into the vessel. When he has finished ten or a dozen of these handfuls, they are submitted to the action of the press. The superfluous size is carried back to the vessel by means of a small pipe. The vessel in which the paper is sized is made of copper, and furnished with a grate, to give the size when necessary a due temperature; and a piece of thin board or felt is placed between every handful as they are laid on the table of the press.

The Dutch are very careful in sizing their paper to have every sheet in the same handful of equal dryness; because it is found that the dry sheets imbibe the size more slowly than those which retain some degree of moisture. They begin by selecting the *padges* in the drying-house; and after having made them supple, and having destroyed the adherence between the sheets, they separate them into handfuls in proportion to the dryness, each of them containing that number which they can dip at one time. Besides this precaution, they take care to apply two sheets of brown paper of

19
Of the sizing of paper.

an

Art of Ma-
king Paper
in Europe.

an equal size to every handful. This brown paper, firm, solid, and already sized, is of use to support the sheets.

As soon as the paper is sized, it is the practice of some paper mills to carry it immediately to the drying-house, and hang it before it cools sheet by sheet on the cords. The paper, unless particular attention be paid to the lattices of the drying-house, is apt to dry too fast, whereby a great part of the size goes off in evaporation; or, if too slow, it falls to the ground. The Dutch drying-houses are the best to prevent these inconveniences:—But the exchange after the sizing, which is generally practised in Holland, is the best remedy. They begin this operation on the handfuls of paper, either while they are still hot, or otherwise as they find it convenient. But, after the exchange, they are careful to allow the heaps to be altogether cold before they are submitted to the press. Without this precaution, the size would either be wholly squeezed out by the press of the exchange, or the surface of the paper become very irregular. It is of consequence that the paper, still warm from the sizing, grow gradually firm, under the operation of the exchange, in proportion as it cools. By this method it receives that varnish which is afterwards brought to perfection under the press, and in which the excellency of the paper either for writing or drawing chiefly consists. It is in consequence of the exchanging and pressing that the Dutch paper is soft and equal, and that the size penetrates into the body of it, and is extended equally over its surface.

The exchange after the sizing ought to be conducted with the greatest skill and attention, because the grain of the paper then receives impressions which can never be eradicated. When the sized paper is also exchanged, it is possible to hang more sheets together on the cords of the drying-house. The paper dries better in this condition, and the size is preserved without any sensible waste, because the sheets of paper mutually prevent the rapid operation of the external air. And as the size has already penetrated into the paper, and is fixed on the surface, the insensible progress of a well conducted drying house renders all the good effects more perfect in proportion as it is slowly dried.

If to these considerations be added the damage done to the paper in drying it immediately after the press of the sizing room, whether it be done in raising the hairs by separating the sheets, or in cracking the surface, it is evident that the trouble of the second exchange is infinitely overpaid by the advantage.

When the paper is sufficiently dry, it is carried to the finishing room, where it is pressed, selected, examined, folded, made up into quires, and finally into reams.—It is here put twice under the press; first, when it is at its full size, and secondly, after it is folded.

The principal labour of this place consists in assorting the paper into different lots, according to its quality and faults; after which it is made up into quires. The person who does this must possess great skill, and be capable of great attention, because he acts as a check on those who separated the paper into different lots. He takes the sheets with his right hand, folds them, examines them, lays them over his left arm till he has the number requisite for a quire, brings the sides parallel to one another, and places them in heaps under the table. An expert workman, if proper care

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has been taken in assorting the lots, will finish in this manner near 600 quires in a day.

The paper is afterwards collected into reams of 20 quires each, and for the last time put under the press, where it is continued for 10 or 12 hours, or as long as the demand of the paper-mill will permit.

A method has lately been discovered of bleaching the rags or stuff, which will undoubtedly be adopted everywhere in the preparation of writing paper, provided the expence of the process be not too great. This discovery was made by Scheele, M. Berthollet, and M. Chaptal. The first of these illustrious writers communicated to the Swedish Academy of Sciences an Essay on Manganese, containing a numerous series of experiments, intended to investigate the nature and properties of that substance. Among these experiments were several which pointed out a new state of the muriatic acid, or the acid distilled from sea-salt, otherwise known under the name of the *acid* or *spirit of sea-salt*. This state of the muriatic acid was produced by Mr Scheele, in consequence of putting the said acid into a retort or distilling vessel, along with the above-mentioned substance called *manganese*, and distilling-over the acid into a proper receiver; it was found to have changed its nature and properties in a very remarkable manner, while at the same time the manganese remaining in the retort had suffered a very material alteration.

To the new state of the acid thus produced, in consequence of certain theoretic ideas which Mr Scheele entertained respecting the mutual action of the original muriatic acid and the manganese on each other during the process of distillation, he gave the name of *dephlogisticated muriatic acid*. Since the time of this original discovery, in consequence of certain changes which have occurred in the theory or philosophy of chemistry, this new state of the acid of sea-salt has been called the *oxygenated muriatic acid*. Among many other properties of it discovered by Mr Scheele, the most remarkable was, that it destroyed the colour of every vegetable substance which was exposed to its action; or, in other words, it bleached them; or, in the language of the dyers, it discharged their colours; that is to say, whatever happened to be the colour of any vegetable body that was submitted to the action of the oxygenated or dephlogisticated muriatic acid, it always became white, or lost its colouring matter.

In the year 1786, Dr Bedoes, now professor of chemistry in the university of Oxford, published an English translation of the Chemical Essays of Mr Scheele; and thereby made known to the chemists of Great Britain the power of the oxygenated or dephlogisticated muriatic acid, to bleach or whiten vegetable substances, or to discharge or decompose their colours. But M. Berthollet, a celebrated chemist in France, and one of the members of the Academy of Sciences at Paris, appears to have been the first who thought of rendering the above recited discovery subservient to the purposes of manufacture.

In 1789, he published in the *Annales de Chimie* an essay calculated entirely for the use of manufacturers, by being divested of theoretic discussions; of which the title is, “Method of bleaching linen or cotton cloths, threads, and yarns, by means of oxygenated muriatic acid, and of some other properties of that liquor which may be useful in manufactures.”

4 X

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Of the fi-
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room.

Art of Ma-
king Paper
in Europe.

21

A new me-
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bleaching
the rags
or stuff.

Art of Making Paper in Europe.

In the same work, and in the same year, M. Chaptal, another French chemist, published an account of some experiments, in which, among many other applications of the oxygenated muriatic acid to purposes useful in the oeconomic arts, he gives information of having bleached or whitened coarse rags used by the paper-makers, so as greatly to improve the quality of the paper into which they were afterwards manufactured. His preparation of this bleaching liquor differs not from Berthollet's, which is as follows: "Take six ounces of manganese and sixteen ounces of sea-salt, both reduced to a fine powder; mix these accurately, and introduce them into a retort or distilling vessel: Then take twelve ounces of oil of vitriol and eight ounces of water, mixed together, and allowed to cool; add these to the other ingredients in the retort, and connect the retort with a cask or receiver capable of holding twenty seven gallons and a half of water, but only containing twenty five gallons, which is to be impregnated with the gas or vapour of the oxygenated muriatic acid; and proceed to distillation, first without and afterwards with a fire gradually raised, till the whole acid comes over."

Experiments have been made with this liquor both by some of the principal paper-makers in the neighbourhood of Edinburgh and by Messrs Clement and George Taylors of Maidstone in Kent. By the former it was found, that paper made of rags and pulp whitened in this manner, was superior to any other made of similar materials, not only in colour but in fineness of texture. By the latter, the excellence of the liquor was found to be so great, that probably having never heard of Scheele, Berthollet, and Chaptal, and conceiving themselves to be the first inventors of it, they obtained a patent for its exclusive use, which other manufacturers will doubtless disregard. It is not to be concealed, however, that, even with all the precautions which can possibly be taken at first, various circumstances of imperfection must necessarily remain to be removed by means of farther experience, both in the perfection of the bleaching process and the economy of its application to use; but for the attaining of this experience a short time will rarely be sufficient.

SECT. II. *Of the different Kinds of Paper.*

12
Writing paper.

THE paper proper for writing should be without knots, without any parts of the stuff not triturated, without folds, and without wrinkles, of a supple texture, its grain uniform and regular, softened in the exchange, and not destroyed by smoothing. The ground of this paper must be extremely white, or shaded with a very light blue, which adds to its natural splendor. It is of great importance that it be fully and equally sized, otherwise the writing cannot be well finished, and the turnings of the letters will be very imperfect. This paper should be made from stuff not putrefied, which takes a better grain, receives more benefit from the exchange, is more equally sized, and finally, is less subject to folds and wrinkles in the different operations. To make paper peculiarly fit for durable writing, Dr Lewis recommends the impregnation of it with astringent materials. "It is observable (says he) that writings first begin to fade or change their

23
For durable writing.

colour on the back of the paper, where the larger strokes have sunk in, or are visible thro' it; as if part of the iron matter of the vitriol was in a more subtle or dissolved state than the rest, and sunk further, on account of its not being fully disengaged from the acid, or sufficiently combined with the astringent matter of the galls. Hence, it should seem probable, that if the paper was impregnated with astringent matter, the colour of the ink would be more durable. To see how far this notion was well founded, I dipped some paper in an infusion of galls; and, when dry, repeated the dipping a second and third time. On the paper thus prepared, and some that was unprepared, I wrote with different inks; several of which, that the effects might be more sensible, had an over-proportion of vitriol. The writings being exposed to the weather till the best of the inks on the unprepared paper had faded and changed their colour, those on the prepared paper were all found to retain their blackness. It is therefore recommended to the consideration of the paper-makers, whether a particular kind of paper might not be prepared for those uses where the long duration of the writing is of principal importance, by impregnating it with galls or other astringents, in some of the operations it passes through before it receives the glazing; as for instance, by using an astringent infusion, instead of common water, in the last operation, when the matter is reduced into a pulp for being formed into sheets. The brownish hue which the paper receives from the galling, would not perhaps be any great obstacle to its use; and, if the proposal should be thought worthy of being carried into execution, further inquiries may possibly discover the means of obviating the imperfection, and communicating astringency without colour."

The paper used for drawing, or for coloured maps, is in some mills made from one kind of white stuff, either fine or middling; in others, from a mixture of three or four kinds of stuff of different colours. The Dutch were not long ago almost wholly in possession of this manufacture. The same qualities are necessary in this paper as in that for writing. The grain, however, must be a little more raised, although softened by the exchange; for, without this grain, the pencil would leave with difficulty the traces of the objects. Great care is also necessary in the sizing of this paper, that the drawing be neatly performed, and also that the sinking of the ink or colours into the irregularities of the stuff be prevented.

This paper is also made in greatest perfection by stuffs not rotted. These take a more even gloss, and are in better condition to receive all the impressions of the painter. It is also necessary that furniture paper be well softened, and submitted to the exchange, to take more exactly the outlines of the figures. The French have carried this part of the manufacture of paper to the highest state of perfection.

The British and Dutch have had the greatest success in manufacturing pasteboard, which they make either from a single mass of stuff on the form, or from a collection of several sheets pasted together. In both cases, the sheets of pasteboard are made of stuff not rotted, and triturated with rollers furnished with blades of well tempered steel. By the operation of the exchange, and smoothing continued for a long time, the

Different kinds of Paper.

24
Paper fit for drawing, or for coloured maps.

25
Of furniture paper.

26
Pasteboard used in the manufacture of woollen cloth.

British.

Different
kinds of
Paper.

British and Dutch obtain solid and smooth stuffs, which neither break under the folds of cloth nor adhere to them. The stuffs not putrefied have another advantage in this species of pasteboard, namely, that of resisting the action of heat, which they experience between the folds of cloth, without wasting or tarnishing, and of consequence they may be used for a long time.

27
Printing
paper.

In England they have at least equalled any other nation in the manufacture of this paper; and even in Scotland they have arrived to such a degree of perfection in this art, that great part of what they manufacture is sent into England. It requires to be made of a soft and equal stuff, without folds or wrinkles, of a natural whiteness, and with a shade of blue. It must be sized less strongly than writing paper, but sufficiently well to give neatness to the characters. The paper, thus properly prepared, yields easily to the printing-press, and takes a sufficient quantity of ink. The stuff must be without grease, and wrought with that degree of slowness as to make it spread equally over the form, and take a neat and regular grain; without this the characters will not be equally marked in every part of the page; and the smallest quantity of grease renders the sizing unequal and imperfect. Some artists with considerable success, both to meliorate the grain, and to reduce the inequalities of the surface, have submitted this paper to the exchange. And it is proper to add, that a moderate degree of exchanging and of pressing may be of great service after the sheets are printed, to destroy the hollow places occasioned by the press, and the relieve of the letters.

28
Paper for
engraving

Engraving requires a paper of the same qualities with the last mentioned, with respect to the stuff, which must be pure, without knots, and equally reduced; the grain uniform, and the sheets without folds or wrinkles. To preserve the grain, it is necessary that it be dried slowly in the lowest place of the drying-house. If it is submitted to the exchange, the effects of it must be moderated with the greatest care, and the action of the two first presses must be equally distributed over the whole mass, otherwise the inequality of the moisture at the middle and sides will expose it to wrinkles in the drying. The sizing of this paper must also be moderate. These circumstances are necessary to make it receive with neatness all the soft and delicate touches of the plate.—The soft and yielding paper of Auvergne possesses all those advantages; and accordingly a great quantity of this and of printing paper were formerly imported into Britain and Holland from France, where they still continue to rot the materials from which they make engraving paper. The wire wove frame, though but lately invented, is, we are told, peculiarly adapted to this kind of paper.

29
Paper for
cards or
any kind
of painting
on a smooth
surface.

Paper for cards must be manufactured from a pretty firm stuff, in order to take that degree of smoothness which makes the cards glide easily over one another in using. For this reason the cardmakers reject every kind of paper which is soft and without strength. This paper requires to be very much sized, since the sizing holds the place of varnish, to which the smoothing gives a glazed and shining surface. To answer all these purposes, the rags require to be a little rotted, and the mallets strongly armed with iron studs. At present Angoumois is almost the only province in

France which sells card-paper to the Dutch and the other northern nations. The rags of Angoumois have the peculiar quality of not turning too soft in the putrefaction, and the mills of that province reduce them to stuff though they be not much putrefied. The French, we believe, excel every other nation in this branch of the manufacture of paper.

Miscellaneous
Observations on
Paper.

SECT. III. *Miscellaneous Observations on Paper.*

To hinder paper from sinking, take about the size of a nut of rock alum, dissolve it in a glass of clear water, and apply it to the paper, which has not been sufficiently sized, with a fine sponge. It is in this manner that the paper-manufacturers of Paris prepare the paper for drawing called *papiers laves*. When there is occasion to write on a printed book, or on paper too fresh, it is sufficient to mix a little gum with ordinary ink.

30
To preserve
paper from
sinking.

To give to writing paper a brilliant varnish, take that which is of an ordinary fineness, very smooth, without any kind of stain or hairs on its surface; stretch it on a smooth plank, and by means of a hare's foot cover it with a thin and equal layer of sandarac finely powdered. Afterwards, if a whole ream is to be varnished, take eight ounces of rock alum and one ounce of white sugar-candy; bring them to boil in six pints of water; and when the liquor is lukewarm, wet that side of the sheet which has been covered with the sandarac with a fine sponge; lay the sheets in a heap, one sheet exactly above another; and submit the ream to the press for the space of twelve hours: hang them afterwards sheet by sheet on the cords of the drying-house; put them again under the press for some days to stretch them; and, finally, beat them with a book-binder's mallet. This paper can only be used for three or four months after it is prepared.

31
Paper var-
nished for
writing.

Painters prepare their paper for drawing, and give it a dark ground, which spares them much labour of the pencil afterwards in those places where shade is necessary. For this purpose, they take white paper and pass a sponge over it, which has imbibed water impregnated with soot, leaving the light places to be formed afterwards. They use also a kind of paper for drawing, which is called tainted paper. A light colour is passed over the whole ground, which deprives the paper of its original brightness, and makes the light places of the print appear more in relieve, and more luminous.

32
Paper pre-
pared for
drawing.

The method most common and most convenient for copying a print, is to use oiled paper. The manner of preparing this paper is to take that which is thin and smooth, known commonly by the name of *serpent paper*, and moisten it with a composition, two parts of the oil of walnuts and one part of the oil of turpentine mixed well together. A sheet of pasteboard and a sheet of paper are laid on a smooth table; above them are placed two sheets of paper to be prepared; and a layer of the oil applied to the uppermost is sufficient to penetrate both. This may be done to any number of sheets, and a strong sheet of pasteboard is placed over the whole. The heap is afterwards submitted to the press, under which it remains for two or three days till the oil be completely dry. Paper prepared in this manner serves to copy very readily and

33
Paper pre-
pared for
copying a
print.

Miscellaneous Observations on Paper.

34 Incombustible paper.

35 A method of erasing ink from paper.

36 A method for taking oil stains out of paper.

37 A method of making oiled paper take colours.

38 To make emery paper.

39 Staining or colouring of paper.

40 To gild paper.

41 To silver paper after the Chinese method without silver.

exactly all kinds of figures and plans; because being altogether transparent, all the parts of the drawing, whether of light or shade, are easily distinguished.

Besides the paper made from the asbestos, it is necessary for wrapping up gunpowder and valuable writings, to have a paper that will not easily take fire. The manner in which this is prepared is extremely simple. Ordinary paper is dipped into boiling liquid, consisting of three-fourths of water and one-fourth of dissolved alum. This salt, which is not inflammable, covers the surface of the paper, and renders it in some measure incombustible.

In the season of verjuice, a little of it diluted with water is sufficient for obliterating any fresh spot of ink. The salt of the verjuice dissolved in water answers the purpose equally well, and the salt of the sorrel is also employed, though with less effect. If the spots be dry, and the above acids are insufficient to eradicate them, a little aquafortis diluted in water and applied with the feather of a quill or a fine hair pencil will make them entirely disappear.

Books and manuscripts are sometimes defaced by accidental stains with oil. To remove such blemishes, burn sheeps bones and reduce them to a fine powder; lay a quantity of this powder on each side of the stain; place it between two sheets of white paper, and submit it for twelve hours to the press. If the stains have not disappeared, it will be necessary to reiterate the process.

To make oiled papers take colours; mix with the colours a very small quantity either of the gall of a pike or carp; and as these substances are of the nature of soap, they dissolve the grease that is in the paper, and permit the colours to be spread over the surface.

Emery paper, which is employed for taking the rust from iron without wasting it, is made by impregnating coarse paper with gummed water or any other tenacious substance, and then covering it over with the finest emery.

The colours proper for paper are not different from those used for other substances, and are enumerated under the article *Colour-Making*. They are applied with soft brushes, after being tempered to a due degree with size or gum-water. If the paper on which they are to be laid is soft, so that the colours are apt to go through, it must also be sized before they are laid on, or a proportionably larger quantity must be used along with the colours themselves. If a considerable extent of the paper is to be done over with one colour, it must receive several coatings, as thin as possible, letting each coat dry before another is put on, otherwise the colour will be unequal.

Take yellow ochre, grind it with rain-water, and lay a ground with it upon the paper all over; when dry, take the white of eggs, beat it clear with white sugarcandy, and strike it all over: then lay on the leaf-gold; and when dry, polish it with a tooth. Some take saffron, boil it in water, and dissolve a little gum with it; then they strike it over the paper, lay on the gold; and, when dry, they polish it.

Take two scruples of clear glue made of neats leather, one scruple of white alum, and half a pint of clear water; simmer the whole over a slow fire, till the water is consumed, or the steam ceases: Then, your sheets of paper being laid on a smooth table, you dip

a pretty large pencil into that glue, and daub it over as even as you can, repeating this two or three times; then sift the powder of talc through a fine sieve, made of horse-hair or gauze, over it; and then hang it up to dry; and, when dry, rub off the superfluous talc, which serves again for the same purpose. The talc you prepare in the following manner: Take fine white transparent Muscovy talc; boil it in clear water for four hours; then take it off the fire, and let it stand so for two days: then take it out, wash it well, and put it into a linen-rag, and beat it to pieces with a mallet: to 10 pounds of talc add 3 pounds of white alum, and grind them together in a little hand-mill; sift it through a gauze-sieve; and being thus reduced to a powder, put it into water, and just boil it up: then let it sink to the bottom, pour off the water from it, place the powder in the sun to dry, and it will become a hard consistence. This beat in a mortar to an impalpable powder, and keep it, for the use above-mentioned, free from dust.

The common grounds laid in water are made by mixing whiting with the common glovers size, and laying it on the paper with a proper brush in the most even manner. This is all that is required, where the ground is to be left white; and the paper being then hung on a proper frame till it be dry, is fit to be painted. When coloured grounds are required, the same method must be pursued, and the ground of whiting first laid; except in pale-colours, such as straw-colours or pink, where a second coating may sometimes be spared, by mixing some strong colour with the whiting.

There are three methods by which paper-hangings are painted; the first by *printing* on the colours; the second by using the *stencil*; and the third by laying them on with a *pencil*, as in other kinds of painting.

When the colours are laid on by printing, the impression is made by wooden prints; which are cut in such manner, that the figure to be expressed is made to project from the surface by cutting away all the other part; and this, being charged with the colours tempered with their proper vehicle, by letting it gently down on a block on which the colour is previously spread, conveys it from thence to the ground of the paper, on which it is made to fall more forcibly by means of its weight, and the effort of the arm of the person who uses the print. It is easy to conclude, that there must be as many separate prints as there are colours to be printed. But where there are more than one, great care must be taken, after the first, to let the print fall exactly in the same part of the paper as that which went before; otherwise the figure of the design would be brought into irregularity and confusion. In common paper of low price, it is usual, therefore, to print only the outlines, and lay on the rest of the colours by *stencilling*; which both saves the expence of cutting more prints, and can be practised by common workmen, not requiring the great care and dexterity necessary to the using several prints.

The manner of *stencilling* the colours is this. The figure, which all the parts of any particular colour make in the design to be painted, is to be cut out, in a piece of thin leather or oil-cloth, which pieces of leather or oil-cloth are called *stencils*; and being laid flat on the sheets

Miscellaneous Observations on Paper.

42 White and coloured grounds for paper hangings.

43 Method of painting the paper hangings.

Miscellaneous Observations on Paper.

sheets of paper to be printed, spread on a table or floor, are to be rubbed over with the colour, properly tempered, by means of a large brush. The colour passing over the whole is consequently spread on those parts of the paper where the cloth or leather is cut away, and give the same effect as if laid on by a print. This is nevertheless only practicable in parts where there are only detached masses or spots of colours: for where there are small continued lines, or parts that run one into another, it is difficult to preserve the connection or continuity of the parts of the cloth, or to keep the smaller corners close down to the paper; and therefore, in such cases, prints are preferable. Stencilling is indeed a cheaper method of ridding coarse work than printing: but without such extraordinary attention and trouble as render it equally difficult with printing, it is far less beautiful and exact in the effect. For the outline of the spots of colour want that sharpness and regularity that are given by prints, besides the frequent extralinations, or deviations from the just figure, which happens by the original misplacing of the stencils, or the shifting the place of them during the operation.

Pencilling is only used in the case of nicer work, such as the better imitations of the India paper. It is performed in the same manner as other paintings in water or varnish. It is sometimes used only to fill the outlines already formed by printing, where the price of the colour, or the exactness of the manner in which it is required to be laid on, render the stencilling or printing it less proper; at other times, it is used for forming or delineating some parts of the design, where a spirit of freedom and variety, not to be had in printed outlines, are desired to be had in the work.

The paper designed for receiving the flock is first prepared with a varnish-ground with some proper colour, or by that of the paper itself. It is frequently

practised to print some Mosaic, or other small running figure in colours, on the ground, before the flock be laid on; and it may be done with any pigment of the colour desired, tempered with varnish, and laid on by a print cut correspondently to that end.

The method of laying on the flock is this. A wooden print being cut, as is above described, for laying on the colour in such manner that the part of the design which is intended for the flock may project beyond the rest of the surface, the varnish is put on a block covered with leather or oil-cloth, and the print is to be used also in the same manner, to lay the varnish on all the parts where the flock is to be fixed. The sheet, thus prepared by the varnished impression, is then to be removed to another block or table, and to be strewed over with flock; which is afterwards to be gently compressed by a board, or some other flat body, to make the varnish take the better hold of it: and then the sheet is to be hung on a frame till the varnish be perfectly dry; at which time the superfluous part of flock is to be brushed off by a soft camel's-hair brush; and the proper flock will be found to adhere in a very strong manner.

The method of preparing the flock is, by cutting woollen-rags or pieces of cloth with the hand, by means of a large bill or chopping knife; or by means of a machine worked by a horse-mill.

There is a kind of counterfeit flock-paper, which, when well managed, has very much the same effect to the eye as the real, though done with less expence. The manner of making this sort is, by laying a ground of varnish on the paper; and having afterwards printed the design of the flock in varnish, in the same manner as for the true; instead of the flock, some pigment, or dry colour, of the same hue with the flock required by the design, but somewhat of a darker shade, being well powdered, is strewed on the printed varnish, and produces nearly the same appearance.

P A P

P A P

Paper-Money.

PAPER-Money is a term frequently made use of for bank-bills, which pass currently in trade instead of gold and silver.

Concerning this species of currency, the national utility of which has been controverted by some, we have the following observations in Dr Smith's Treatise on the Wealth of Nations: "The substitution of paper in the room of gold and silver money replaces a very expensive instrument of commerce with one much less costly, and sometimes equally convenient. Circulation comes to be carried on by a new wheel, which it costs less both to erect and maintain than the old one.

"When the people of any particular country have such confidence in the fortune, probity, and prudence of a particular banker, as to believe that he is always ready to pay upon demand such of his promissory notes as are likely at any time to be presented to him, those notes come to have the same currency as gold and silver money, from the confidence that such money can at any time be had for them.

"A particular banker lends among his customers his own promissory notes, to the amount, we shall sup-

pose, of 100,000 l. As those notes serve all the purposes of money, his debtors pay him the same interest as if he had lent them so much money. This interest is the source of his gain. Though some of those notes are continually coming back upon him for payment, part of them continue to circulate for months and years together. Though he has generally in circulation, therefore, notes to the amount of 100,000 l. 20,000 l. in gold and silver may frequently be a sufficient provision for answering occasional demands. By this operation, therefore, 20,000 l. in gold and silver perform all the functions which 100,000 l. could otherwise have performed. Eighty thousand pounds of gold and silver can therefore, in this manner, be spared from the circulation of the country; and if different operations of the same kind should at the same time be carried on by many different banks and bankers, the whole circulation may be thus conducted with a fifth part only of the gold and silver.

"Let us suppose, for example, that the whole circulating money of some particular country amounted, at a particular time, to 1,000,000 l. sterling, that sum being

Paper-Money.

Paper-
Money.

being then sufficient for circulating the whole annual produce of their land and labour. Let us suppose too, that, some time thereafter, different banks and bankers issued promissory notes, payable to the bearer, to the extent of 1,000,000*l.* reserving in their different coffers 200,000*l.* for answering occasional demands. There would remain, therefore, in circulation 800,000*l.* in gold and silver, and 1,000,000*l.* of bank-notes, or 1,800,000*l.* of paper and money together. But the annual produce of the land and labour of the country had before required only 1,000,000*l.* to circulate and distribute it to its proper consumers, and that annual produce cannot be immediately augmented by those operations of banking. One million, therefore, will be sufficient to circulate it after them. The goods to be bought and sold being precisely the same as before, the same quantity of money will be sufficient for buying and selling them. The channel of circulation, if I may be allowed such an expression, will remain precisely the same as before. One million we have supposed sufficient to fill that channel. Whatever, therefore, is poured into it beyond this sum, cannot run in it, but must overflow. One million eight hundred thousand pounds are poured into it. Eight hundred thousand pounds, therefore, must overflow, that sum being over and above what can be employed in the circulation of the country. But though this sum cannot be employed at home, it is too valuable to be allowed to lie idle. It will therefore be sent abroad, in order to seek that profitable employment which it cannot find at home. But the paper cannot go abroad; because, at a distance from the banks which issue it, and from the country in which payment of it can be exacted by law, it will not be received in common payments. Gold and silver, therefore, to the amount of 800,000*l.* will be sent abroad, and the channel of home circulation still remain filled with 1,000,000*l.* of paper instead of 1,000,000*l.* of those metals which filled it before.

“ But though so great a quantity of gold and silver is thus sent abroad, we must not imagine that it is sent abroad for nothing, or that its proprietors make a present of it to foreign nations. They will exchange it for foreign goods of some kind or another, in order to supply the consumption either of some other foreign country or of their own.

“ If they employ it in purchasing goods in one foreign country in order to supply the consumption of another, or in what is called the *carrying trade*, whatever profit they make will be an addition to the neat revenue of their own country. It is like a new fund, created for carrying on a new trade; domestic business being now transacted by paper, and the gold and silver being converted into a fund for this new trade.

“ If they employ it in purchasing foreign goods for home-consumption, they may either first purchase such goods as are likely to be consumed by idle people who produce nothing, such as foreign wines, foreign silks, &c.; or, secondly, they may purchase an additional stock of materials, tools, and provisions, in order to employ an additional number of industrious people, who reproduce, with a profit, the value of their annual consumption.

“ So far as it is employed in the first way, it promotes prodigality, increases expence and consumption,

without increasing production, or establishing any permanent fund for supporting that expence, and is in every respect hurtful to the society.

“ So far as it is employed in the second way, it promotes industry; and though it increases the consumption of the society, it provides a permanent fund for supporting that consumption, the people who consume, reproducing, with a profit, the whole value of their annual consumption. The gross revenue of the society, the annual produce of their land and labour, is increased by the whole value which the labour of those workmen adds to the materials upon which they are employed; and their neat revenue by what remains of this value, after deducting what is necessary for supporting the tools and instruments of their trade.

“ That the greater part of the gold and silver which, being forced abroad by those operations of banking, is employed in purchasing foreign goods for home-consumption, is and must be employed for purchasing those of this second kind, seems not only probable, but almost unavoidable. Though some particular men may sometimes increase their expence very considerably, though their revenue does not increase at all, we may be assured that no class or order of men ever does so; because, though the principles of common prudence do not always govern the conduct of every individual, they always influence that of the majority of every class or order. But the revenue of idle people, considered as a class or order, cannot in the smallest degree be increased by those operations of banking. Their expence in general, therefore, cannot be much increased by them, though that of a few individuals among them may, and in reality sometimes is. The demand of idle people, therefore, for foreign goods, being the same, or very nearly the same, as before, a very small part of the money, which being forced abroad by those operations of banking, is employed in purchasing foreign goods for home-consumption, is likely to be employed in purchasing those for their use. The greater part of it will naturally be destined for the employment of industry, and not for the maintenance of idleness.

“ When we compute the quantity of industry which the circulating capital of any society can employ, we must always have regard to those parts of it only which consist in provisions, materials, and finished work: the other, which consists in money, and which serves only to circulate those three, must always be deducted. In order to put industry into motion, three things are requisite; materials to work upon, tools to work with, and the wages or recompence for the sake of which the work is done. Money is neither a material to work upon, nor a tool to work with; and though the wages of the workman are commonly paid to him in money, his real revenue, like that of all other men, consists, not in the money, but in the money's worth; not in the metal pieces, but in what can be got for them.

“ The quantity of industry which any capital can employ, must evidently be equal to the number of workmen whom it can supply with materials, tools, and a maintenance suitable to the nature of the work. Money may be requisite for purchasing the materials and tools of the work, as well as the maintenance of the workmen. But the quantity of industry which the whole capital can employ, is certainly not equal both

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to the money which purchases, and to the materials, tools, and maintenance, which are purchased with it; but only to one or other of those two values, and to the latter more properly than to the former.

"When paper is substituted in the room of gold and silver money, the quantity of the materials, tools, and maintenance, which the whole circulating capital can supply, may be increased by the whole value of gold and silver which used to be employed in purchasing them. The whole value of the great wheel of circulation and distribution is added to the goods which are circulated and distributed by means of it. The operation, in some measure, resembles that of the undertaker of some great work, who, in consequence of some improvement in mechanics, takes down his old machinery, and adds the difference between its price and that of the new to his circulating capital, to the fund from which he furnishes materials and wages to his workmen.

"What the proportion is which the circulating money of any country bears to the whole value of the annual produce circulated by means of it, it is perhaps impossible to determine. It has been computed by different authors at a fifth, at a tenth, at a twentieth, and at a thirtieth part of that value. But how small soever the proportion which the circulating money may bear to the whole value of the annual produce, as but a part, and frequently but a small part, of that produce, is ever destined for the maintenance of industry, it must always bear a very considerable proportion to that part. When, therefore, by the substitution of paper, the gold and silver necessary for circulation is reduced to perhaps a fifth part of the former quantity, if the value of only the greater part of the other four-fifths be added to the funds which are destined for the maintenance of industry, it must make a very considerable addition to the quantity of that industry, and consequently to the value of the annual produce of land and labour.

"An operation of this kind has, within these 35 or 40 years, been performed in Scotland, by the erection of new banking companies in almost every considerable town, and even in some country villages. The effects of it have been precisely those above described. The business of the country is almost entirely carried on by means of the paper of those different banking companies, with which purchases and payments of all kinds are commonly made. Silver very seldom appears, except in the change of a twenty shillings bank-note, and gold still seldomer. But though the conduct of all those different companies have not been unexceptionable, and has accordingly required an act of parliament to regulate it; the country, notwithstanding, has evidently derived great benefit from their trade. I have heard it asserted, that the trade of the city of Glasgow doubled in about 15 years after the first erection of the banks there; and that the trade of Scotland has more than quadrupled since the first erection of the two public banks at Edinburgh; of which the one, called *The Bank of Scotland*, was established by act of parliament in 1695; the other, called *The Royal Bank*, by royal charter in 1727. Whether the trade, either of Scotland in general, or of the city of Glasgow in particular, has really increased in so great a proportion during so short a period, I do not pretend to know.

If either of them has increased in this proportion, it seems to be an effect too great to be accounted for by the sole operation of this cause. That the trade and industry of Scotland, however, have increased very considerably during this period, and that the banks have contributed a good deal to this increase, cannot be doubted.

"The value of the silver money which circulated in Scotland before the Union, in 1707, and which immediately after it was brought into the bank of Scotland in order to be re-coined, amounted to 411,117*l.* 10*s.* 9*d.* sterling. No account has been got of the gold coin; but it appears from the ancient accounts of the mint of Scotland, that the value of the gold annually coined somewhat exceeded that of the silver. There were a good many people too upon this occasion, who, from a diffidence of repayment, did not bring their silver into the bank of Scotland; and there was, besides, some English coin which was not called in. The whole value of the gold and silver, therefore, which circulated in Scotland before the Union cannot be estimated at less than 1,000,000*l.* sterling. It seems to have constituted almost the whole circulation of that country; for though the circulation of the bank of Scotland, which had then no rival, was considerable, it seems to have made but a very small part of the whole. In the present times, the whole circulation of Scotland cannot be estimated at less than 2,000,000*l.* of which that part which consists in gold and silver most probably does not amount to 500,000*l.* But though the circulating gold and silver of Scotland have suffered so great a diminution during this period, its real riches and prosperity do not appear to have suffered any. Its agriculture, manufactures, and trade, on the contrary, the annual produce of its land and labour, have evidently been augmented." See *TRADE*.

PAPER-Office, an office in the palace of Whitehall, in which all the public writings, matters of state and council, proclamations, letters, intelligences, negotiations abroad, and generally all dispatches that pass through the offices of the secretaries of state, are lodged, by way of library.

PAPIER MACHE. This is a substance made of cuttings of white or brown paper, boiled in water, and beaten in a mortar, till they are reduced into a kind of paste, and then boiled with a solution of gum arabic or of size, to give tenacity to the paste, which is afterwards formed into different toys, &c. by pressing it into oiled moulds. When dry, it is done over with a mixture of size and lamp-black, and afterwards varnished. The black varnish for these toys, according to Dr Lewis, is prepared as follows: Some colophony, or turpentine boiled down till it becomes black and friable, is melted in a glazed earthen vessel, and thrice as much amber in fine powder sprinkled in by degrees, with the addition of a little spirit or oil of turpentine now and then: when the amber is melted, sprinkle in the same quantity of sarcocolla, continuing to stir them, and to add more spirit of turpentine, till the whole becomes fluid; then strain out the clear through a coarse hair-bag, pressing it gently between hot boards. This varnish, mixed with ivory-black in fine powder, is applied, in a hot room, on the dried paper-paste; which is then set in a gently heated oven, next day in a hotter oven, and the third day in

Paphlagonia,
Paphos.

a very hot one, and let stand each time till the oven grows cold. The paste thus varnished is hard, durable, glossy, and bears liquors hot or cold.

PAPHLAGONIA (anc. geog.), a country of the Hither Asia, beginning at Parthenius, a river of Bithynia, on the west, and extending in length to the Halys eastward, with the Euxine to the north, and Galatia to the south. Pliny enlarges the limits on the west side to the river Billis, on this side the Parthenius. It is called *Pylemenia* by some (Pliny). *Paphlagones*, the people, mentioned by Homer, and therefore of no small antiquity. A superstitious and silly people (Lucian); a brave people (Homer); taking their name from Phaleg (Bocchart).

PAPHOS (anc. geog.), two adjoining islands on the west side of the island of Cyprus; the one called *Hala Paphos* (Strabo, Ptolemy, Pliny); the other *Nea Paphos*; and when mentioned without an adjunct, this latter is always understood. Both dedicated to Venus, and left undistinguished by the poets (Virgil, Horace). Hence Venus is surnamed *Paphia*, *Paphii* the people, (Coins, Stephanus). It was restored by Augustus, after a shock of an earthquake, and called *Augusta* (Dio).

The Abbé Mariti, in his Travels through Cyprus, gives the following account of the island of Paphos. "It is situated (says he) on the southern side: it contained the celebrated temple of Venus; which, together with the city, was destroyed by an earthquake, so that the least vestige of it is not now to be seen. A lake in the neighbourhood, which even in summer overflows with stagnant and corrupted water, renders the air in some degree unwholesome. On the western coast is the new Paphos, called by some of the modern geographers *Baffos*; a name which is unknown in the island of Cyprus. That we may not positively ascribe to the latter every thing that history tells us of Paphos in general, it may not be here improper to mention that it has been several times destroyed. This city had a port, where vessels trading upon that coast still cast anchor: but this happens only in summer; for, being exposed to every wind, it is extremely dangerous. The bottom of it is full of sharp rocks; which sometimes destroy the cables so much, that mariners are obliged to keep them afloat on the surface of the water, by means of empty casks fixed to them at certain distances. In the neighbourhood there are two castles; one on the borders of the sea, and the other on the summit of a little hill: but the latter is at present in ruins. The government of Paphos consists of a digdaban or commissary; a cadi; and an aga, who presides over the customhouse. Of all the Christian edifices, there is none remaining but the church of St George, in which service is performed by the Greek ministers. The productions of this part of the island, which are all of an excellent quality, are silk, barley, and other kinds of grain. To discover the origin of the old and new Paphos, would be carrying light into the midst of the thickest darkness. When we have added conjecture to conjecture, we are still in the same situation. As this is an attempt superior to my abilities, I shall leave it to the divining, though uncertain, knowledge of our antiquaries. I must, however, observe, that there was here formerly a temple dedicated to Venus, which was entirely destroyed by an

Nº 258.

earthquake. In this island St Paul by his eloquence converted Sergius, a Roman proconsul. He here likewise conferred the deaconship on his disciple and colleague Titus, who soon after suffered martyrdom. Paphos was an episcopal city in the time of the Lusignans: and it is still the seat of a bishop, who is a suffragan to the archbishop of Nicosia. On the western side of the island there are a great number of scattered villages; but they are not worthy of notice, being either abandoned or in ruins."

Mr Bruce informs us, that in the neighbourhood of this place many silver medals of excellent workmanship are dug up; they are, however, but of little estimation among the antiquarians, being chiefly of towns of the size of those found at Crete and Rhodes, and in all the islands of the Archipelago. There are some excellent Greek Intaglios; generally upon better stones than usual in the islands. This illustrious traveller informs us, that he has seen some heads of Jupiter, remarkable for bushy hair and beard, which were of excellent workmanship, and worthy of any price. All the inhabitants of the island are subject to fevers, but especially those in the neighbourhood of Paphos. The same traveller observes, that Cyprus was very long undiscovered; for though ships had been sailing on the Mediterranean 1700 years before Christ, and though the island is only a day's sailing from the continent of Asia on the north and east, and little more from that of Africa on the south, it was not known at the building of Tyre, a little before the Trojan war, that is, 500 years after the neighbouring seas had been navigated. It was covered with wood at its first discovery; and our author is of opinion, that it was not well known even at the time of building of Solomon's temple; because we do not find that Hiram king of Tyre, though just in its neighbourhood, ever had recourse to it for wood: though the carriage would undoubtedly have been easier from thence, than to have brought it down from the top of Mount Lebanon. Eratosthenes informs us, that in ancient times the island was so overgrown with wood, that it could not be tilled; so that they first cut down the timber to be used in the furnaces for melting silver and copper; that after this they built fleets with it: but finding even this insufficient, they gave liberty to all strangers to cut it down for whatever purpose they pleased; and not only so, but they gave them afterwards the property of the ground they had cleared. Matters are now quite altered; and the want of wood is a principal complaint in most parts of the island. About Acamas, however, on the west side of the island, the wood is still thick and impervious, inhabited by large stags and wild boars of a monstrous size. Mr Bruce was informed, that a live elephant had lately been seen there, but gave no credit to the account.

PAPIAS, bishop of Hieropolis, a city of Phrygia, was the disciple of St John the Evangelist, and the companion of Polycarp, as St Jerome observes, and not of John the Ancient, as some other authors have maintained. He composed a work in five books, intitled *Expositions of the Discourses of our Lord*, of which there are only some fragments now remaining. He it was who introduced the opinion of the Millenarians.

PAPILIO, the BUTTERFLY; in zoology, a genus of insects belonging to the order of lepidoptera. It has

Paphos
Papilio.

Papilio. has four wings, imbricated with a kind of downy scales; the tongue is convoluted in a spiral form; and the body is hairy. The antennæ grow thicker towards their extremity, and are in most subjects terminated by a kind of capitulum or head. The wings, when sitting, are erect, insomuch that their extremities meet or touch one another above the body. They fly in the day-time. There are 273 species, principally distinguished by the colour of their wings. Mr Barbut has divided them into four sections, which he thus characterizes. 1. The equites, or riders, the upper wings being longer from the hindmost angle to the point than to the base: their antennæ are often filiform. They are divided into Trojans; which for the most part are black, with blood-like spots on the breast: and Greeks, whose breast has no such marks; the small eye being placed at the angle of the anus; and of these some are without bands or fillets, others with bands or fillets. 2. The heliconians, whose wings are narrow throughout, often bare; the upper oblong, the under ones very short. 3. The Danaï, whose wings are entire; the candidi, with whitish wings; the festivi, with variegated wings. 4. The nymphals, whose wings are denticulated: divided into the gemmati, whose wings have eyes; subdivided into those which have eyes on all the wings; those which have them on the upper wings; those which have them on the under ones; and the phalerati, whose wings are without eyes. 5. The plebeians, whose larva is often contracted: divided into the rurales, with darkish spots on their wings; and the urbicolæ, with spots generally transparent on their wings.

* *Ibid.*

The beauties of this elegant part of the creation are well known; and there are few who can contemplate them without astonishment. We have the following account of their various stages of existence in Barbut*. "The caterpillar (says he) informs us in what manner it prepares for the lethargic sleep, which is to serve as a transition to its metamorphosis. The period of its reptile life being accomplished, it changes its form to become an inhabitant of the air. The chrysalis is at once the tomb of the caterpillar and the cradle of the butterfly. It is within a silken cod, or under a transparent veil, that this great miracle of nature is daily wrought. But how does the weak defenceless butterfly, scarce unfolded into existence, go about to make its way through the impenetrable walls that preserved it from insult during its torpid state? How will it bear the effulgence of the light, and keenness of the air? Take one of their cods, make an aperture in it with a pair of scissars, fix it against a glass; observe the insect, you will perceive the organs gradually displaying themselves: follow his operations with your eye; he struggles to break loose from his confinement. Observe the frothy liquor which it disgorges; that liquor serves to soften the end of the cod, which at length yields to the butting of the insect's head. By degrees the bar is removed, and the butterfly springs forth; the impression of the air acts upon its wings, slightly apparent at first, but which afterwards expand with remarkable rapidity. The display of them is sometimes checked by drought, in which case the insect is deprived of the faculty of flying. The rostrum, extended under the covering of the chrysalis, is in this last state rolled up into spiral, and lodged in a recess

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prepared for it. The fly is now perfectly formed; it gently flutters, then takes its flight, and pursues its mazy wanderings over the enamelled meads, plunging its rostrum into the cups of nectareous flowers."

Of papilio, N° 1. Barbut gives the following account. "The ground colour of the insect is a beautiful glossy black, the superior wings are ornamented with white forked clouds; the inferior ones are adorned with spots of a blood-colour, those nearest the extremities being of a lunular form, and are indented, terminating in an extended tail, and are edged with white. The apex, or crown of the head, is tipped with the same red colour which encircles the shoulders, and terminates the abdomen the space of about five rings."

Of N° 2. he speaks thus: "The form of the wings resembles the preceding insects. They are beautifully variegated with black and yellow; the inferior ones terminate in a tail, and, according to the character of the section, are adorned with an eye of a yellowish red colour, encircled with blue, which is situated at the edge, nearest the extremity of the abdomen. This is the largest, and one of the most beautiful insects England produces. The caterpillar is large and smooth, of a bright green colour, with transversal bands, of a deep glossy purple upon every ring, which bands are enriched with yellow spots; it feeds on wild fennel and other umbelliferous plants; changes into the chrysalis in July, assumes the winged state in August, and frequents meadows. It sometimes appears in May."

And of N° 3. we have this account: "The peacock, or peacock's eye, is easily known by the peacock's eyes which it bears above, four in number, one upon each wing, which has given it the name it has. Its wings, very angulous, are black underneath; above they are of a reddish dun colour. The upper ones have on their superior edge two black oblong spots, with a yellow one between the two. At their extremity is found the eye, large, reddish in the middle, surrounded with a yellow circle, accompanied by a small portion of blue towards the exterior side. On that same side, following the direction of the margin, there are five or six white spots, set in order. The inferior wings are browner, and have each a large eye of a very dark blue in the middle, surrounded by an ash-colour circle. The caterpillar of this butterfly is of a deep black, dotted with a little white."

We cannot conclude this article without noticing some very singular species; of which Mr Reaumur has given an account, and which deserve particular regard.

One species of these he has called the *bundle of dry leaves*. This, when it is in a state of rest, has wholly the appearance of a little cluster of the decayed leaves of some herb. The position and colour of its wings greatly favour this resemblance, and they have very large ribs; wholly like those of the leaves of plants, and are indented in the same manner at their edges as the leaves of many plants are. This seems to point out the care of nature for the animal, and frequently may preserve it from birds, &c.

The skull butterfly is another singular species, so called from its head resembling in some degree a death's head or human skull. This very remarkable appearance is terrible to many people; but it has another yet greater singularity attending it, which is,

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that,

Papilio.
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Papilio
Papinian.

that, when frightened, it has a mournful and harsh voice. This appeared the more surprising to Mr Reaumur, as no other known butterfly had any the least voice at all; and he was not ready of belief that it was a real voice, but suspected the noise, like that of the cicadæ, to be owing to the attrition of some part of the body; and, in fine, he, by great pains, discovered that this noise was not truly vocal, but was made by a hard and brisk rubbing of the trunk against two other hard bodies between which it is placed.

Another butterfly there is, so small that it might be mistaken for a small fly. This is certainly the extreme in degree of size of all the known butterflies, and cannot but have been proportionably small in the state of a caterpillar and chrysalis: this creature spends its whole life in all the three stages of caterpillar, chrysalis, and butterfly, on the leaf of the celandine. It lives on the under side of the leaf; and though in the caterpillar state it feeds on it, yet it does no damage. It does not eat the substance of the leaf, but draws from it only a fine juice, which is soon repaired again, without occasioning any change in the appearance of the leaf. This species is very short-lived; and passes through its three states in so short a time, that there are frequently ten generations of it in one year; whereas, in all the other butterflies, two generations in the year are all that are to be had. These two generations are sufficient to make a prodigious increase: in a large garden, if there are twenty caterpillars in spring, these may be overlooked, and there may be easily concluded to be none there, even on a narrow search; but if these twenty caterpillars afterwards become twenty butterflies, ten of which are male and ten female, and each female lay the same number of eggs that the common silk-worm does, that is, four hundred; if all the caterpillars hatched of these become butterflies, and these lay eggs in the same proportion, which remain the winter, and come to be hatched in the succeeding spring; then from these twenty, in only one year, you will have eight hundred thousand; and if we add to this the increase of these in a succeeding year, the account must appear terrible, and such as no art could guard against. The great Ruler of the world has put so many hinderances in the way of this over-abundant production, that it is very rare such years of destruction happen. Some such have happened, however; and much mischief has been dreaded from them, not only from their eating all the herbage, but from themselves being eaten with herbs in sallads and otherwise: but experiments have proven this to be an erroneous opinion, and they are found to be innocent, and eatable as snails or oysters.

PAPILIONACEOUS, among botanists, an appellation given to the flowers of plants belonging to various classes, from their resembling the wings of a butterfly.

PAPINIAN, a celebrated Roman lawyer of the third century, under the Emperor Severus; who had so high an opinion of his worth, that he recommended his sons Caracalla and Geta to his care. Caracalla having first murdered his brother, ordered Papinian to compose a discourse to excuse this murder to the senate and people; which when he refused to undertake, the brutal emperor ordered him to be beheaded; and his body was dragged through the streets of Rome. Pa-

pinian wrote several treatises in the line of his profession.

PAPISTS, are those who believe the pope or bishop of Rome to be the supreme pastor of the universal church, who profess to believe all the articles of pope Pius's creed, and who promise implicit obedience to the edicts of the church, especially the decrees of the council of Trent. See POPE and TRENT.

PAPPENHEIM, a town of Germany, in the circle of Franconia, and capital of a county of the same name, with a castle, where the counts reside. It is seated near the river Altmal, 17 miles north-west of Neuburg, and 32 south of Nuremburg; is subject to its own count. E. Long. 10. 51. N. Lat. 48. 58. The count of Pappenheim is hereditary marshal of the empire, and performs his office at the coronation of the emperor.

PAPPUS, an eminent philosopher of Alexandria, said by Suidas to have flourished under the Emperor Theodosius the Great, who reigned from A. D. 379. to 395. His writings show him to have been a consummate mathematician: Many of them are lost; the rest continued long in manuscript, detached parts having only been occasionally published in the last century, until Carolus Manolessius published his remains entire at Bologna in 1660, in folio.

PAPPUS, in botany, a soft downy substance that grows on the seeds of certain plants, as thistles, hawkweed, &c. serving to scatter and buoy them up in the air.

PAPYRUS, the famous reed from which was made the far-famed paper of Egypt. Before entering on the description of the papyrus, it is natural to say a word or two on the opinion generally received in Europe concerning the loss of this plant. Supposing this loss possible, the date of it must be fixed at no distant period; for it is not 200 years since Guilandin and Prosper Alpin observed the papyrus on the banks of the Nile. Guilandin saw the inhabitants of the country eating the inferior and succulent part of the stem in the manner of the ancients; a fact which alone shows it to be the papyrus, and of which other travellers seem not to have availed themselves. This practice, together with those related by Prosper Alpin, are sufficient to convince us, that this plant is not wholly useless, although it is not now employed in the fabrication of paper. The alteration on the soil of Egypt, and on the methods of agriculture, have in all probability rendered this plant less common; but causes altogether local could not occasion the destruction of the papyrus, especially as its residence in the marshes would prevent their operation. But it is needless to reason from probabilities or analogy: Mr Bruce not only saw the papyrus growing both in Egypt and Abyssinia, but actually made paper of it in the manner in which it was made by the ancients. He tells us likewise, that, so far from any part of it being useless, the whole plant is at this day used in Abyssinia for making boats, a piece of the acacia tree being put in the bottom to serve as a keel. That such were the boats of ancient Egypt, we know from the testimony of Pliny, who informs us, that the plants were first sewed together, and then gathered up at stem and stern, and tied fast to the keel: "Conferitur bibula Memphitis cymba papyro."

Papists
Papyrus.

Papyrus.

App ndix to
Bruce's
Travels.

"The bottom, root, or woody part of this plant, was likewise of several uses before it turned absolutely hard; it was chewed in the manner of liquorice, having a considerable quantity of sweet juice in it. This we learn from Dioscorides; it was, I suppose, chewed, and the sweetness sucked out in the same manner as is done with sugar-cane. This is still practised in Abyssinia, where they likewise chew the root of the Indian corn, and of every kind of cyperus; and Herodotus tells us, that about a cubit of the lower part of the stalk was cut off, and roasted over the fire, and eaten.

"From the scarcity of wood, which was very great in Egypt, this lower part was likewise used in making cups, moulds, and other necessary utensils: we need not doubt, too, one use of the woody part of this plant was, to serve for what we call *boards* or *covers* for binding the leaves, which were made of the bark; we know that this was anciently one use of it, both from Alcæus and Anacreon."

The papyrus, says Pliny, grows in the marshes of Egypt, or in the stagnant places of the Nile, made by the flowing of that river, provided they are not beyond the depth of two cubits. Its roots are tortuous, and in thickness about four or five inches; its stem is triangular, rising to the height of ten cubits. Prosper Alpin gives it about six or seven cubits above the water; the stem tapers from the bottom, and terminates in a point. Theophrastus adds, that the papyrus carries a top or plume of small hairs, which is the thyrsus of Pliny. Guilandin informs us, that its roots throw to the right and left a great number of small fibres, which support the plant against the violence of the wind, and against the waters of the Nile. According to him, the leaves of the plant are obtuse, and like the typha of the marshes. Mr Bruce, on the other hand, assures us, that it never could have existed in the Nile. "Its head (says he) is too heavy; and in a plain country the wind must have had too violent a hold of it. The stalk is small and feeble, and withal too tall; the root too short and slender to stay it against the violent pressure of the wind and current; therefore I do constantly believe it never could be a plant growing in the river Nile itself, or in any very deep or rapid river;" but in the calishes or places where the Nile had overflowed and was stagnant.

The Egyptians made of this plant paper fit for writing (see PAPER), which they call *βίβλος* or *philuria*, and also *χαρτης*, and hence the Latin *charta*; for in general the word *charta* is used for the paper of Egypt.

The papyrus was produced in so great quantities on the banks of the Nile, that Cassiodorus (lib. xi. 38.) compares it to a forest. There, says he, rises to the view, this forest without branches, this thicket without leaves, this harvest of the waters, this ornament of the marshes. Prosper Alpin is the first who gives us a plate of the papyrus, which the Egyptians call *berdi*. However badly this may be executed, it corresponds in some degree with the description of the plant mentioned by Theophrastus; but by much the best drawing of it has been given by Mr Bruce, who has very obligingly permitted us to give a copy of it. See Plate CCCLXXV.

The ancient botanists placed the papyrus among the graminous plants or dog-grass; ignorant of the

particular kind to which it belonged, they were contented to specify it under the name of *papyrus*, of which there were two kinds, that of Egypt, and that of Sicily. The moderns have endeavoured to show, that these two plants are one and the same species of cyperus. It is under this genus that they are found in the catalogues and descriptions of plants published since the edition of Morrifon's work, where the papyrus is called *cyperus niloticus vel Syriacus maximus papyraceus*.

In the manuscripts of the letters and observations of M. Lippi physician at Paris, who accompanied the envoy of Louis XIV. to the emperor of Abyssinia, we find the description of a cyperus which he had observed on the banks of the Nile in 1704. After having described the flowers, he says that many ears covered with young leaves are supported by a pretty long pedicle; and that many of those pedicles, equally loaded and coming from one joint, form a kind of parasol. The disk of this parasol is surrounded with a quantity of leaves which form a crown to the stem which supports it. The stem is a pretty long prism, the corners of which are a little rounded; and the leaves, not at the top but at the side, are formed like the blade of a sword; the roots are black and full of fibres; and this plant is called *cyperus Nileacus major, umbella multiplici*.

The same Lippi describes another kind which rises not so high: the stem and leaves correspond with the former, but the ears form rather a kind of head than any thing like the spreading of an umbrella; this head was very soft, shining, and gilded rich and airy, much loaded, supported by pedicles which were joined together at the bottom like the knitting of a parasol. It is called by him *cyperus Nileacus major aurea, divisa pannicula*. These two kinds of cyperus have a marked resemblance in their leaves, their stem, their foliage, and the marshy places where they grow. The only difference consists in their size, and in the position of the ears, which serve to distinguish them; and they seem to bear a resemblance to the papyrus and the fari, described by ancient authors. The first is perhaps the papyrus, and the second the fari; but this is only conjecture.

The papyrus, which grew in the waters, is said to have produced no seed; but this Mr Bruce very properly calls an absurdity. "The form of the flower (says he) sufficiently indicates, that it was made to resolve itself into the covering of one, which is certainly very small, and by its exalted situation and thickness of the head of the flower, seems to have needed the extraordinary covering it has had to protect it from the violent hold the wind must have had upon it. For the same reason, the bottom of the filaments composing the head are sheathed in four concave leaves, which keep them close together, and prevent injury from the wind getting in between them." Its plume was composed of slender pedicles, very long, and somewhat like hair, according to Theophrastus. The same peculiarity exists in the papyrus of Sicily; and the same is found to exist in another kind of papyrus sent from Madagascar by M. Poivre, correspondent of the academy of sciences.

It is impossible to determine whether the papyrus of Sicily was used in any way by the Romans. In Italy it is called *papero*, and, according to Cefalpin, *pipero*.

Papyrus.

This papyrus of Sicily has been cultivated in the garden of Pisa; and if we can depend on the authority of Cefalpin, who himself examined the plant, it is different from the papyrus of Egypt.

The papyrus, says he, which is commonly called *pipero* in Sicily, has a longer and thicker stem than the plant cyperus. It rises sometimes to four cubits; the angles are obtuse, and the stem at the base is surrounded with leaves growing from the root; there are no leaves on the stem even when the plant is at the greatest perfection, but it carries at the top a large plume which resembles a great tuft of dishevelled hairs; this is composed of a great number of triangular pedicles, in the form of reeds; at the extremity of which are placed the flowers, between two small leaves of a reddish colour like the cyperus. The roots are woody, about the thickness of reeds, jointed, and they throw out a great number of branches which extend themselves in an oblique direction. These are scented somewhat like the cyperus, but their colour is a lighter brown; from the lower part issue many small fibres, and from the higher a number of stems shoot up, which in proportion as they are tender contain a sweet juice.

The plume of the papyrus of Sicily is pretty well described in a short account of it in the second part of the *Museum de Bocoone*. This plume is a tuft or assemblage of a great number of long slender pedicles, which grow from the same point of division, are disposed in the manner of a parasol, and which carry at the top three long and narrow leaves, from which issue other pedicles, shorter than the former, and terminating in several knots of flowers. Micheli, in his *Nova Plantarum Genera*, printed at Florence 1728, has given an engraving of one of the long pedicles in its natural length: it is surrounded at the base with a case of about one inch and a half in height; towards the extremity it carries three long and narrow leaves, and four pedicles, to which are fixed the knots of flowers. Every pedicle has also a small case surrounding its base. In short, we find in the *Grosso-Graphia* of Schenchzer a very particular description of the plume of a kind of cyperus, which appears to be the Sicilian plant. From this account it appears that the papyrus of Sicily is well known to botanists. It were to be wished that we had as particular a description of the papyrus of Egypt; but meanwhile it may be observed, that these two plants have a near affinity to one another; they are confounded together by many authors; and according to Theophrastus, the *sari* and the *papyrus nilotica* have a decided character of resemblance, and only differ in this, that the papyrus sends forth thick and tall stems, which being divided into slender plates, are fit for the fabrication of paper; whereas the *sari* has small stems, considerably shorter, and altogether useless for any kind of paper.

The papyrus, which served anciently to make paper, must not be confounded with the papyrus of Sicily, found also in Calabria; for, according to Stribon, the papyrus was to be found in no place excepting Egypt and India. The greatest part of botanists have believed that the Sicilian plant is the same with the *sari* of Theophrastus; others have advanced that the papyrus of Egypt and the *sari* were the same plant in two different stages of its existence, or considered with

respect to the greater or less height; which, according to them, might depend on the qualities of the soil, the difference of the climate, or other accidental causes. In proof of this, it is maintained, that there is an essential difference between the papyrus growing in the waters and the same plant growing on the banks of rivers and in marshes. The first of these have thick and tall stems, and a plume in the form of a tuft of hair very long and slender, and without any seed: the second differs from the first in all these particulars; it has a shorter and more slender stem, its plume is loaded with flowers, and of consequence it produces seed. In whatever way we consider these facts, it is sufficient for us to know, that the difference between the papyrus and the *sari* neither depends on climate, nor soil, nor on situation. The plants whose difference depended on these circumstances, both grew in Egypt, and were both employed in the manufacture of paper. But it is an established fact, that the *sari* cannot be employed for this purpose.

Finally, the papyrus of Sicily began to be known by botanists in 1570, 1572, 1583, at which periods the works of Lobel, of Guilandin, and of Cefalpin, first appeared. The ancients had no manner of knowledge of this plant. Pliny makes no mention of it in his Natural History; from which it is evident that it was neither used in Rome nor in Sicily. If he had seen this plant, he must have been struck with its resemblance to the papyrus and the *sari*, as they were described by Theophrastus; and since he gives a particular description of these last mentioned, he would have most naturally hinted at their conformity to the Sicilian papyrus.

Among many dried plants collected in the East Indies by M. Poivre, there is a kind of papyrus very different from that of Sicily. It carries a plume composed of a considerable tuft of pedicles, very long, weak, slender, and delicate, like single threads, terminating most frequently in two or three small narrow leaves, without any knot of flowers between them; hence this plume must be altogether barren. Those pedicles or threads are furnished with a pretty long membranous case, in which they are inserted; and they issue from the same point of direction, in the manner of a parasol. The plume, at its first appearance, is surrounded with leaves like the radii of a crown. The stem which supports it is, according to M. Poivre, about ten feet in height, where there is two feet under water; it is of a triangular form, but the angles are rounded; its thickness is about the size of a walking staff which fills the hand.

The interior substance, although soft and full of fibres, is solid, and of a white colour. By this means the stem possesses a certain degree of strength, and is capable of resistance. It bends without breaking; and as it is extremely light, it serves in some sort for a cane: The same M. Poivre used no other during a residence of several months at Madagascar. This stem is not of equal thickness in its whole length; it tapers insensibly from the thickest part towards the top. It is without knots, and extremely smooth. When this plant grows out of the waters, in places simply moist, it is much smaller, the stems are lower, and the plume is composed of shorter pedicles or threads, terminating at the top in three narrow leaves, a little longer than those

Papyrus.

Papyrus.

Plate CCCLXXV.



A. Bell Pin. H. ad. sculptor fecit.

Papyrus those at the plume, when the plant grows in the water. From the base of these leaves issue small knots of flowers, arranged as they are in the cyperus; but these knots are not elevated above the pedicles, they occupy the centre of the three leaves, between which they are placed, and form themselves into a small head. The leaves which spring from the root and the lower part of the stem resemble exactly those in the cyperus. This plant, which the inhabitants call *sanga-sanga*, grows in great abundance in their rivers and on their banks, but particularly in the river Tartas, near the Foule-point in Madagascar. The inhabitants of these cantons use the bark of this plant for mats; they make it also into sails, into cordage for their fishing-houses, and into cords for their nets.

This kind of papyrus, so lately discovered, and different from the papyrus of Sicily by the disposition of its flowers, shows, that there are two kinds of the cyperus which might easily be confounded with the papyrus of Egypt; whether we consider, on the one hand, to what purposes the inhabitants of the places where they grow have made them subservient; or, on the other, compare their form, their manner of growth, and the points in which they resemble each other. This comparison can be easily made from the accounts which Pliny and Theophrastus gave of the papyrus of Egypt, and by the figure and description given by Prosper Alpin, after having observed the plant on the banks of the Nile. But if we can depend on the testimony of Strabo, who affirms that the papyrus is found nowhere but in Egypt and in India, it is perhaps possible that the papyrus of the isle of Madagascar, situated at the mouth of India, is the same with that of Egypt.

Whatever truth may be in this conjecture, the inhabitants of this island have never derived from it those advantages which have immortalised the papyrus of Egypt. They have not made that celebrated paper *quo usu maxime humanitas, vita, constat et memoria*. This remarkable expression of Pliny not only characterizes the Egyptian paper, but every kind which art and industry have substituted in its place.

PAR, in commerce, signifies any two things equal in value. See **EXCHANGE**.

PARABLE, a fable or allegorical instruction, founded on something real or apparent in nature or history, from which a moral is drawn by comparing it with something in which the people are more immediately concerned; such are the parables of Dives and Lazarus, of the Prodigal Son, of the Ten Virgins, &c. Dr Blair observes, that "of parables, which form a part of allegory, the prophetic writings are full; and if to us they sometimes appear obscure, we must remember, that in those early times it was universally the mode throughout all the eastern nations to convey sacred truths under mysterious figures and representations."

PARABOLA. See **CONIC SECTIONS**.

PARABOLE. See **ORATORY**, n° 84.

PARACELSUS (Aurelius Philip Theophrastus Bombastus de Hohenheim), a famous physician, born at Einsidlen, a town in the canton of Schweiz in Switzerland. He was educated with great care by his fa-

ther, who was the natural son of a prince, and in a little time made a great progress in the study of physic. He afterwards travelled into France, Spain, Italy, and Germany, in order to become acquainted with the most celebrated physicians. At his return to Switzerland, he stopped at Basil, where he read lectures on physic in the German tongue. He was one of the first who made use of chemical remedies with success, by which he acquired a very great reputation. Paracelsus gloried in destroying the method established by Galen, which he believed to be very uncertain; and by this means drew upon himself the hatred of the other physicians. It is said, that he boasted of being able, by his remedies, to preserve the life of man for several ages: but he himself experienced the vanity of his promises, by his dying at Saltzburg, in 1504, at 37 years of age according to some, and at 48 according to others. The best edition of his works is that of Geneva in 1658, in 3 vols folio.

PARACENTESIS, an operation in surgery, commonly called *tapping*. See **SURGERY**.

PARACLET, the **COMFORTER**, a name given to the Holy Ghost.

PARADE, in a military sense, the place where troops assemble or draw together, to mount guard, or for any other purpose.

PARADE, in fencing, implies the action of parrying or turning off any thrust.

PARADIS (Francis Augustine) de **MONCRIF**. See **MONCRIF**.

PARADISE, a term principally used for the garden of Eden, in which Adam and Eve were placed immediately upon their creation.

As to this terrestrial paradise, there have been many inquiries about its situation. It has been placed in the third heaven, in the orb of the moon, in the moon itself, in the middle region of the air, above the earth, under the earth, in the place possessed by the Caspian sea, and under the arctic pole. The learned Huetius places it upon the river that is produced by the conjunction of the Tigris and Euphrates, now called the *river of the Arabs*, between this conjunction and the division made by the same river before it falls into the Persian sea. Other geographers have placed it in Armenia, between the sources of the Tigris, the Euphrates, the Araxis, and the Phasis, which they suppose to be the four rivers described by Moses. But concerning the exact place we must necessarily be very uncertain, if indeed it can be thought at all to exist at present, considering the many changes which have taken place on the surface of the earth since the creation.

"Learned men (says Mr Miln *) have laboured to find out the situation of Paradise, which seems to be but a vague and uncertain inquiry; for the Mosaic description of it will not suit any place on the present globe. He mentions two rivers in its vicinity, viz. Pison and Gihon, of which no vestiges can now be found. The other two still remain, viz. the Hiddekel, supposed to be the Tigris, and the Euphrates, whose streams unite together at a considerable distance above the Persian gulph; in some part of which, it is highly probable the happy garden once lay (A). This gulph

Paracelsus
Paradise.

Physico-
Theol.
Lectures.

18.

(A) "God (we are told) placed at the east of the garden of Eden cherubims and a flaming sword, which turned every

Paradise. is eastward both of the land of Midian and the wilderness of Sinai; in one of which places Moses wrote his history. But since the formation of this earth, it has undergone great changes from earthquakes, inundations, and many other causes. The garden, however, seems to have been a peninsula, for the way or entrance into it is afterwards mentioned. We are told that a 'river went out of it;' which, according to some, should be rendered 'run on the outside of it,' and thus gave it the form of a horse-shoe: for had the Euphrates run through the middle of the garden, one half of it would have been useless to Adam, without a bridge or boat wherewith to have crossed it."

The learned authors of the Universal History, in their account of rarities natural and artificial in Syria, mention "a spot which is still shown as the place where once stood the garden of Eden, or Terrestrial Paradise. And indeed it is in all respects so beautiful and rich, and yields so delightful a prospect from the adjacent hills, that there is hardly another place in the world that has a fairer title to the name it bears. Its proximity to Damascus, the capital of Syria, near the fountain head of the Jordan; its situation between the Tigris or Hiddekel, the Euphrates, the Phasis or Phison, the Araxes or Gihon (which last has those names from its vast rapidity above all other known rivers), its bordering upon the land of Chus, famed for its fine gold; all these and many other marks specified by Moses, together with its charming and surprising fruitfulness, and constant verdure, have induced a great number of commentators to settle that celebrated and so much sought-after spot here, and to deem it the most valuable of all the natural rarities of this country."

Christians, however, need not be told, that however curious or amusing this inquiry may be, the determination of it is of no importance, since we are all well assured that the celestial paradise is that place of pure and refined delight in which the souls of the blessed enjoy everlasting happiness.

It may not be improper, however, in this place to give a description of the paradise of the Mohammedans. The sensuality and absurdity of that impostor must be apparent to all men. Their religion has no consistency in its parts, and the descriptions of the future enjoyment of the faithful are miserable instances of human weakness and folly.

"The paradise of the Mohammedans is said by them to be situated above the seven heavens, or in the seventh, and next under the throne of God; and to express the amenity of the place, they tell us that the earth of it is of the finest wheat-flour, or of the purest musk, or of saffron; and that its stones are pearls and jacinths, the walls of its buildings enriched with gold and silver, and the trunks of all its trees of gold, amongst

which the most remarkable is the tree *tuba*, or tree of Paradise, happiness. They pretend that this tree stands in the palace of Mohammed, though a branch of it will reach to the house of every true believer, loaded with pomegranates, dates, grapes, and other fruits of surprising bigness, and delicious tastes, unknown to mortals. If a man desires to eat of any particular kind of fruit, it will immediately be presented to him; or if he chooses flesh, birds ready dressed will be set before him, and such as he may wish for. They add, that this tree will supply the blessed, not only with fruit, but with silk garments also, and beasts to ride on, adorned with rich trappings, all which will burst forth from the fruit; and that the tree is so large, that a person mounted on the fleetest horse would not be able to gallop from one end of its shade to the other in 100 years. Plenty of water being one of the greatest additions to the pleasantness of any place, the Alcoran often speaks of the rivers of paradise as the principal ornament. Some of these rivers are said to flow with water, some with milk, some with wine, and others with honey: all of them have their sources in the root of this tree of happiness; and, as if these rivers were not sufficient, we are told that the garden of this paradise is also watered by a great number of lesser springs and fountains, whose pebbles are rubies and emeralds, their earth of camphor, their beds of musk, and their sides of saffron. But all those glories will be eclipsed by the resplendent and exquisite beauty of the girls of paradise, the enjoyment of whose company will constitute the principal felicity of the faithful. These (they say) are not formed of clay, as mortal women, but of pure musk; and are, as their prophet often affirms in his Alcoran, free from all the natural defects and inconveniences incident to the sex. Being also of the strictest modesty, they keep themselves secluded from public view in pavilions of hollow pearls, so large, that, as some traditions have it, one of them will be no less than 16, or, as others say, 60 miles long, and as many broad. With these the inhabitants of paradise may taste pleasures in their height; and for this purpose will be endowed with extraordinary abilities, and enjoy a perpetual youth."

PARADISE-LOST, the name of a modern epic poem, the first and finest of those composed by Milton.

The subject of this poem is extraordinary; it had never before been attempted, and seemed to be above the efforts of human genius. Angels and devils are not the machinery, but the principal actors in it; so that what would appear marvellous in any other composition, is in this only the natural course of events.—The poet's intention was, as he expresses it himself, to vindicate the ways of God to men. How far Milton was happy in the choice of his subject, may be questioned.

every way, to keep the way of the tree of life. In Scripture, the extraordinary judgments of God are said to be executed by his angels, who are sometimes compared to flames of fire. Therefore the cherubim and the flaming sword may probably mean nothing more than that a large portion of ground on the eastward of Paradise was set on fire during the above awful occasion, and continued burning with such violence, that the flame thereof at a distance appeared like a brandished sword, turning every way with the wind. Now if the soil of Eden was bituminous, like that of Gomorrah (which was once so fertile as to be compared to the "garden of the Lord"), the fire would continue burning till it produced the same effect in the one place as it did in the other, and turned a great part of that tract into sea: which seems to countenance the opinion of those who place the situation of Paradise in some part of the Persian Gulph."

Paradise, questioned. It has led him into difficult ground, though it certainly suited the daring sublimity of his genius. It is a subject for which he alone was fitted; and, in the conduct of it, he has shown a stretch both of imagination and invention which is perfectly wonderful.

Bird of PARADISE. See the following article.

Plate
CCCLXXIV.

PARADISEA, in ornithology; a genus of birds belonging to the order of picæ. The beak is covered with a belt or collar of downy feathers at the base; and the feathers on the sides are very long.

"Birds of this genus (says Latham) have the bill slightly bending; the base covered with velvet-like feathers. The nostrils are small, and concealed by the feathers. The tail consists of 10 feathers; the two middle ones, and sometimes more in several of the species, are very long, and webbed only at the base and tips. The legs and feet are very large and strong: they have three toes forward, one backward, and the middle connected to the outer one as far as the first joint. The whole of this genus have, till lately, been very imperfectly known; few cabinets possessing more than one species, viz. the Greater, or what is called the *common bird of Paradise*; nor has any set of birds given rise to more fables, the various tales concerning which are to be found in every author; such as, their never touching the ground from their birth to death; living wholly on the dew; being produced without legs; and an hundred such stories, too ridiculous even to mention. This last error is scarcely at this moment wholly eradicated. The circumstance which gave rise to it did not indeed at first proceed from an intention to deceive, but merely from accident. In the parts of the world which produce these birds, the natives made use of them as *aigrets*, and other ornaments of dress; and in course threw away the less brilliant parts. The whole trouble they were at on this occasion, was merely to skin the bird, and, after pulling off the legs, coarser parts of the wings, &c. thrust a stick down the throat into the body, letting an inch or two hang out of the mouth, beyond the bill; on the bird's drying, the skin collapsed about the stick, which became fixed, and supported the whole. They had then no more to do than to put this end of it into a socket fitted to receive it, or fasten it in some manner to the turban, &c. By degrees these were imported into the other isles for the same uses, and afterwards were coveted by the Japanese, Chinese, and Persians, in whose countries they are frequently seen, as well as in many parts of India; the grandees of these last parts not only ornamenting themselves with these beautiful plumes, but adorning even their horses with the same."

The Portuguese first found these birds on the island of Gilolo, the Papua islands, and New Guinea; and they were known by the name of *birds of the sun*. The inhabitants of Ternate call them *manuco dewata*, the "bird of God;" whence the name *manuco diata*, used by some naturalists, is derived. According to some fabulous accounts, this bird has no legs, lives constantly on wing, and in the air; and, in confirmation of these accounts, the legs of all the dead birds offered to sale were cut off. But the inhabitants of Aroo, who resort yearly to Banda, undeceived the Dutch, and freed them from those prejudices. Another reason for cutting off

the legs is, that the birds are more easily preserved without them; besides that the Moors wanted the birds without legs, in order to put them on in their mock-fights as ornaments to their helmets. The inhabitants of Aroo, however, have brought the birds with legs for 80 or 90 years; and Pijafetta, shipmate of Ferdinand Magellan, proved, about the year 1525, an eye-witness that these creatures were not without legs. However, the peculiar length and structure of their scapular feathers hinders them from settling, in high winds, on trees; and when they are thrown on the ground by these winds, they cannot rise again. If taken by the natives, they are immediately killed, as their food is not known; and they defend themselves with great courage with their formidable bills.

Latham enumerates eight species, but suspects there may be more. We shall satisfy ourselves with the following:

1. The largest bird of Paradise is commonly two feet four inches in length; the head is small; the bill hard and long, of a pale colour. The head and back-part of the neck is lemon-coloured, a little black about the eyes; about the neck, the bird is of the brightest glossy emerald green, soft like velvet; as is also the breast, which is black: the wings are large, and chestnut-coloured; the back-part of the body is covered with long, straight, narrow feathers, of a pale brown colour, similar to the plumes of the ostrich. These feathers are spread when the bird is on the wing; for which reason he can keep very long in the air. On both sides of the belly are two tufts of stiff and shorter feathers, of a golden yellow, and shining. From the rump proceed two long stiff shafts, which are feathered on their extremities.

These birds are not found in Key, an island fifty Dutch miles east of Banda; but they are found at the Aroo islands, lying 15 Dutch miles farther east than Key, during the westerly or dry monsoon; and they return to New Guinea as soon as the easterly or wet monsoon sets in. They come always in a flock of 30 or 40, and are led by a bird which the inhabitants of Aroo call the *king*. This leader is black, with red spots; and constantly flies higher than the rest of the flock, which never forsake him, but settle as soon as he settles; a circumstance that frequently proves their ruin when the king lights on the ground, whence they are not able to rise on account of the singular structure and disposition of their plumage. They are likewise unable to fly with the wind, which would ruin their loose plumage; but take their flight constantly against it, cautious not to venture out in hard blowing weather, as a strong wind frequently obliges them to come to the ground. During their flight they cry like starlings. Their note, however, approaches more to the croaking of ravens; which is heard very plainly when they are in distress from a fresh gale blowing on the back of their plumage. In Aroo, these birds settle on the highest trees, especially on the ficus benamina of the hortus malabaricus, commonly called the *waranga tree*. The natives catch them with bird-lime or in nooses, or shoot them with blunt arrows; but though some are still alive when they fall into their hands, the catchers kill them immediately, and sometimes cut the legs off; then they draw out the entrails, dry and fumigate the bodies.

Paradisea. dies with sulphur or smoke only, and sell them at Banda for half a rixdollar each; but at Aroo they may be bought for a spike-nail or a piece of old iron. Flocks of these birds are often seen flying from one island to the other against the wind. In case they find the wind become too powerful, they fly straight up into the air, till they come to a place where it is less agitated, and then continue their flight. During the eastern monsoon their tails are moulted, so that they have them only during four months of the western monsoon.

2. The smaller bird of Paradise is about 20 inches long. His beak is lead-coloured, and paler at the point. The eyes are small, and inclosed in black about the neck. The head and back of the neck are of a dirty yellow; the back of a greyish yellow; the breast and belly of a dusky colour; the wings small, and chestnut-coloured. The long plumage is about a foot in length, and paler than in the large species; as in general the colours of this bird are less bright than the former. The two long feathers of the tail are constantly thrown away by the natives. This is in all respects like the greater sort; and they likewise follow a king or leader, who is, however, blacker, with a purplish cast, and finer in colour than the rest. The neck and bill are larger in the male than in the female. They roost on the tops of the highest trees, and do not migrate like the other kind. Some say, that the birds of this species, finding themselves weak through age, soar straight towards the sun till they are tired, and fall dead to the ground. The natives draw the entrails, sear the birds with a hot iron, and put them in a tube of bamboo for preservation.

3. and 4. The large black bird of Paradise is brought without wings or legs for sale; so that no accurate description of it hath yet been given. Its figure, when stuffed, is narrow and round, but stretched in length to the extent of four spans. The plumage on the neck, head, and belly, is black and velvet-like, with a hue of purple and gold, which appears very strong. The bill is blackish, and one inch in length. On both sides are two bunches of feathers, which have the appearance of wings, although they be very different, the wings being cut off by the natives. This plumage is soft, broad, similar to peacocks feathers, with a glorious gloss and greenish hue, and all bent upwards; which Valentine thinks is occasioned by the birds being kept in hollow bamboo-reeds. The feathers of the tail are of unequal length; those next to the belly are narrow, like hair; the two uppermost are much longer, and pointed; those immediately under them are a span and a half longer than the upper ones; they are stiff, on both sides fringed with a plumage like hair, black above, but glossy below. Birds of this kind are brought only from one particular place of New Guinea. Besides the large black bird of Paradise, there is still another sort, whose plumage is equal in length, but thinner in body, black above, and without any remarkable gloss, not having those shining peacock-feathers which are found on the greater species. This wants likewise the three long pointed feathers of the tail belonging to the larger black species.

5. The white bird of Paradise is the most rare, and has two varieties; one quite white, and the other black

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and white. The former is very rare. The second has the fore-part black, and the back-part white; with 12 crooked wiry shafts, which are almost naked, tho', in some places, covered with hairs.

6. In the year 1689 a new species of the black bird of Paradise was seen in Amboyna. This was only one foot in length, with a fine purple hue, a small head, and a straight bill. On its back, near the wings, are feathers of a blue and purple colour, as on the other birds of Paradise; but under the wings and over all the belly they are yellow coloured, as in the common sort: on the back of the neck they are mouse-coloured mixed with green. It is remarkable in this species, that there are before the wings two roundish tufts of feathers, which are green-edged, and may be moved at pleasure by the bird, like wings. Instead of a tail, he has 12 or 13 black, naked, wire-like shafts, hanging promiscuously like feathers. His legs are strong, and have sharp claws. The head is remarkably small; and the eyes are also small, and surrounded with black.

7. The last species we shall mention is the king's bird. This creature is about seven inches long, and somewhat larger than a titmouse. Its head and eyes are small; the bill straight; the eyes included in circles of black plumage; the crown of the head is flame-coloured; the back of the neck blood-coloured; the neck and breast of a chestnut colour, with a ring of the brightest emerald-green. Its wings are in proportion strong; and the quill-feathers dark, with red shining plumes, spots, and stripes. The tail is straight, short, and brown. Two long naked black shafts project from the rump, at least a hand-breadth beyond the tail; having at their extremities semilunar twisted plumage, of the most glaring green colour above, and dusky below. The belly is white and green sprinkled; and on each side is a tuft of long plumage, feathered with a broad margin, being on one side green and on the other dusky. The back is blood-red and brown, shining like silk. The legs are in size like those of a lark, three fore-toes and one back-toe. This bird associates not with any of the other birds of Paradise; but sits solitary from bush to bush, wherever he sees red-berries, without ever getting on tall trees.

Those who wish for minuter information respecting this curious genus, we must refer to Latham's Synopsis, and Buffon's Birds, vol. ix. &c.

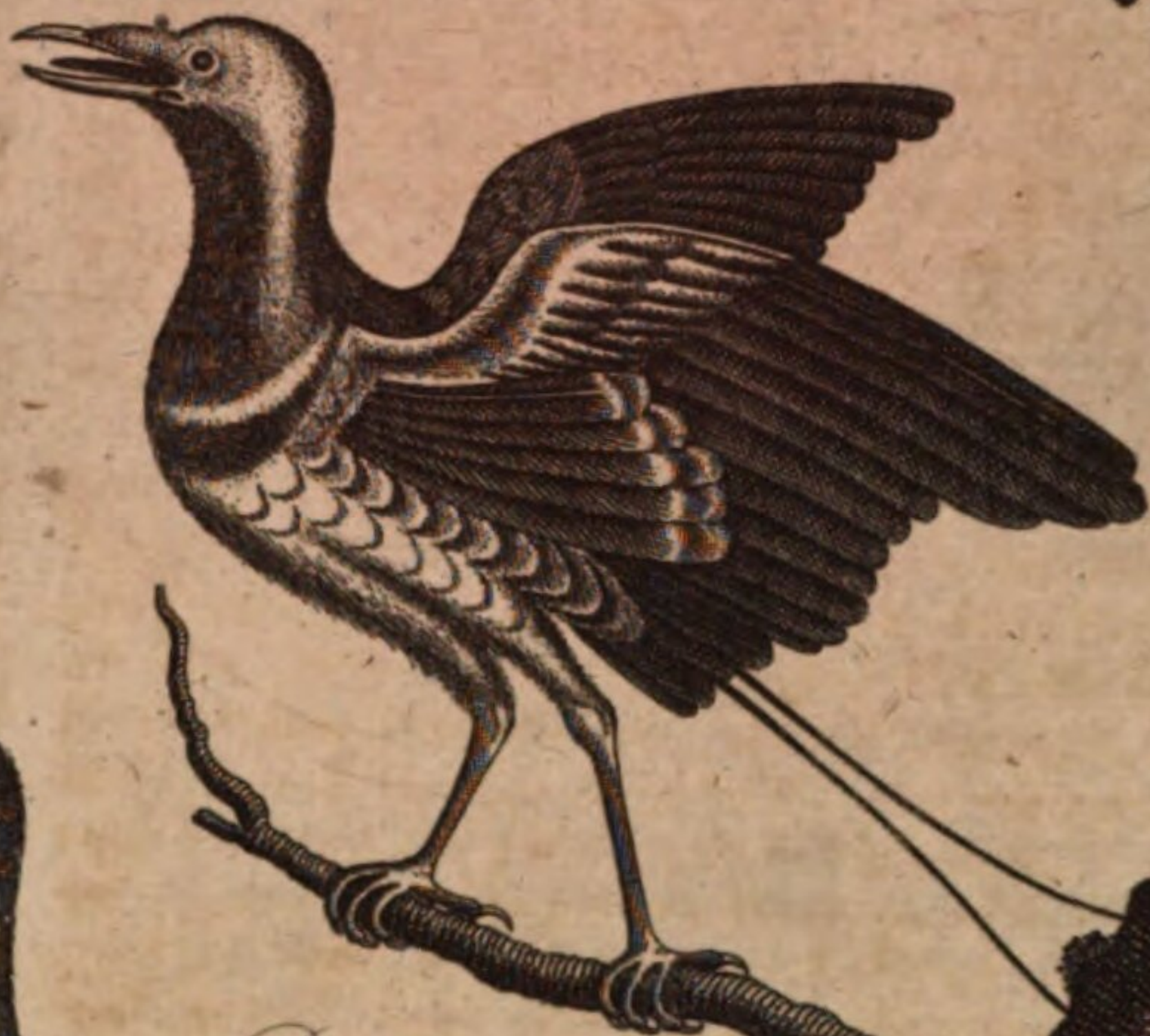
PARADOX, *παράδοξον*, in philosophy, a proposition seemingly absurd, as being contrary to some received opinions, but yet true in fact.

The vulgar and illiterate take almost every thing, even the most important, upon the authority of others, without ever examining it themselves. Although this implicit confidence is seldom attended with any bad consequences in the common affairs of life, it has nevertheless, in other things, been much abused; and in political and religious matters has produced fatal effects. On the other hand, knowing and learned men, to avoid this weakness, have fallen into the contrary extreme: some of them believe every thing to be unreasonable, or impossible, that appears so to their first apprehension; not adverting to the narrow limits of the human understanding, and the infinite variety of objects, with their mutual operations, combinations, and affections, that may be presented to it.

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Birds of Paradise.



Palamedea.
or the Horned Screamer.



Pangolin of Hindostan or the Iajracita.



Paradox.

It must be owned, that credulity has done much more mischief in the world than incredulity has done, or ever will do; because the influences of the latter extend only to such as have some share of literature, or affect the reputation thereof. And since the human mind is not necessarily impelled, without evidence, either to belief or unbelief, but may suspend its assent to, or dissent from, any proposition till after a thorough examination; it is to be wished that men of learning, especially philosophers, would not hastily, and by first appearances, determine themselves with respect to the truth or falsehood, possibility or impossibility, of things.

A person who has made but little progress in the mathematics, though in other respects learned and judicious, would be apt to pronounce it impossible that two lines, which were nowhere two inches asunder, may continually approach toward one another, and yet never meet, though continued to infinity: and yet the truth of this proposition may be easily demonstrated. And many, who are good mechanics, would be as apt to pronounce the same, if they were told, that though the teeth of one wheel should take equally deep into the teeth of three others, it should affect them in such a manner, that, in turning it any way round its axis, it should turn one of them the same way, another the contrary way, and the third no way at all.

No science abounds more with paradoxes than geometry: thus, that a right line should continually approach to the hyperbola, and yet never reach it, is a true paradox; and in the same manner a spiral may continually approach to a point, and yet not reach it in any number of revolutions, however great.

The Copernican system is a paradox to the common people; but the learned are all agreed as to its truth. Geometricians have of late been accused of maintaining paradoxes; and some do indeed use very mysterious terms in expressing themselves about asymptotes, the sums of infinite progressions, the areas comprehended between curves and their asymptotes, and the solids generated from these areas, the length of some spirals, &c. But all these paradoxes and mysteries amount to no more than this; that the line or number may be continually acquiring increments, and those increments may decrease in such a manner, that the whole line or number shall never amount to a given line or number. The necessity of admitting it is obvious from the nature of the most common geometrical figures: thus, while the tangent of a circle increases, the area of the corresponding sector increases, but never amounts to a quadrant. Neither is it difficult to conceive, that if a figure be concave towards a base, and have an asymptote parallel to the base (as it happens when we take a parallel to the asymptote of the logarithmic curve, or of the hyperbola, for a base), that the ordinate in this case always increases while the base is produced,

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but never amounts to the distance between the asymptote and the base. In like manner, a curvilinear area may increase while the base is produced, and approach continually to a certain finite space, but never amount to it; and a solid may increase in the same manner, and yet never amount to a given solid. See *M. Laurin's Fluxions*. See *LOGARITHMIC-Curve*.

PARADOXI, a sort of mimes or buffoons among the ancients, who entertained the people with extempore effusions of drollery. They were also called *Paradoxologi*, *Ordonarii*, *Neanicologi*, and *Aretalogi*. See *MIMI*.

PARAGAUDÆ, among the Romans, were wreaths of gold, or silk and gold, interwoven in, not sewed to, their garments. The garment was sometimes of one colour, with one paragaudæ; sometimes of two colours, with two paragaudæ; or three colours, with three paragaudæ, &c. They were worn both by men and women.

PARAGOGE, in grammar, a figure whereby a letter or syllable is added to the end of a word; as *med*, for *me*; *dicier*, for *dici*, &c.

PARAGRAPH, in general, denotes a section or division of a chapter; and in references is marked thus, ¶.

PARAGUAY, or LA PLATA, a province of Spanish America, bounded on the north by the river of the Amazons; on the east, by Brazil; on the south, by Patagonia; and on the west, by Chili and Peru. This country was first discovered by Sebastian Cabot, who, in 1526, passed from Rio de la Plata to the river Parana in small barks, and thence entered the river called *Uruguay*. It was not, however, thoroughly reduced till the Jesuits obtained possession of it. A few of these went to Paraguay soon after the city of Assumption was founded, and converted about 50 Indian families, who soon induced many others to follow their example, on account of the peace and tranquillity they enjoyed under the fathers. They had long resisted the Spaniards and Portuguese; but the Jesuits, by learning their language, conforming to their manners, &c. soon acquired great authority among them; till at last, by steadily pursuing the same artful measures, they arrived at the highest degree of power and influence, being in a manner the absolute sovereigns of a great part of this extensive country; for above 350,000 families are said to have been subject to them, living in obedience and awe bordering on adoration, yet procured without the least violence or constraint.

We have the following particular account of the missions of Paraguay, in the words of Don Jorge Juan, &c. 1753. *Gent. Mag.*

"The territories of the missions of Paraguay comprehended not only the province of that name, but also a great part of the provinces of Santa Cruz de la Sierra, Tucuman, and Buenos Ayres. The temperature (A) of the air is good, though somewhat moist, and in some parts rather cold: the soil in many places is fertile;

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tile;

(A) The climate of Paraguay differs but little from that of Spain; and the distinctions between the seasons are much the same. In winter, indeed, violent tempests of wind and rain are very frequent, accompanied with such dreadful claps of thunder and lightning as fill the inhabitants, though used to them, with terror and consternation. In summer, the excessive heats are mitigated by gentle breezes, which constantly begin at eight or nine in the morning.

Paradoxi

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Paraguay.

Paraguay. tile (B); and produces in great abundance not only the fruits and vegetables peculiar to America, but also those of Europe which have been introduced there. The chief articles of their commerce are cotton, tobacco, some sugar, and the herb called *Paraguay*. Every town gathers annually more than 2000 arrobas of cotton, of a quarter of an hundred weight each, which the Indians manufacture into stuffs. There are also great quantities of tobacco produced. But the chief article is the herb *Paraguay*: for it grows only in the districts of the missions; and there is a vast consumption of this herb in all the provinces of Chili and Peru, especially of that called *camini*, which is the pure leaf; the infusion of which is called *mate*, and is drank by the inhabitants of Lima twice a-day in lieu of tea or chocolate. The *mate* which is made by the infusion of the stalk is not so much esteemed.

" 'Tis now almost two centuries since these missions were first set on foot by the Jesuits. The bad management of the Portuguese greatly favoured the views of these fathers. There was a nation of Indians called *Guaranies*, some whereof were settled upon the banks of the rivers Uruguay and Parana, and others an hundred leagues higher up in the country to the north-west of Guayra. The Portuguese frequently came upon them, and by force carried away as many as they thought proper to their plantations, and made slaves of them. Offended by such treatment, the *Guaranies* resolved to quit their settlements in the neighbourhood of the Portuguese, and to remove into the province of Paraguay. Accordingly a migration of 12,000 persons, great and small, ensued. These the Jesuits soon converted; and having had the like success in converting about an equal number of the natives of Tape, a district in Paraguay, they united the two nations, and laid the foundation of their future dominion. These fathers seem to have trode in the steps of the first Incas, and to have civilized nations and converted souls in order to acquire subjects. According to a very exact account taken in the year 1734, there were then 32 towns of the *Guaranies*, which were reckoned to contain above 30,000 families; and as

the new converts were continually increasing, they were then about laying the foundations of three new towns. There were also then seven very populous towns inhabited by the converted Chiquito Indians, and they were preparing to build others for the reception of the new converts of that nation which were daily made.

" The missions of Paraguay are surrounded on all sides with wild or unconverted Indians; some of whom live in friendship with the towns, but others harass them by frequent incursions. The father missionaries frequently visit these Indians, and preach to them; and from these expeditions they seldom return without bringing along with them some new converts to incorporate with their civilized subjects. In the performance of this duty they sometimes penetrated 100 leagues into those uncultivated tracts where wild Indians range; and it is observed that they meet with the least success amongst those nations with whom any fugitive Mestizos, or Spanish criminals, have taken refuge. The diligence of these fathers is certainly worthy the imitation of the protestant clergy.

" Every town has its curate, who is assisted by one, and very often by two priests of the same order, according to the largeness and extent of the town and its district. These two or three priests, together with six boys who assist them in the service of the church, form a small college in every town, wherein the hours and other exercises are regulated with the same formality and exactness as in the large colleges in the cities of Peru and Chili. The most troublesome part of the duty of the assistant priests are the personal visitations which they are obliged to make to the Indians to prevent their giving themselves up to idleness; for such is the slothfulness of the *Guaranies*, that if they were not very carefully looked after, the society would receive no benefit or advantage from them. They also attend the public shambles, where the cattle necessary for the sustenance of the Indians are daily slaughtered, and distribute the flesh amongst all the families in the town, in proportion to the number of persons whereof each family consists; so that all may have what is necessary,

(B) It produces maize, manioc, and potatoes, besides many fruits and simples unknown in Europe. Vines, however, do not thrive, except in some particular places. Wheat has also been tried; but it is only used for cakes, and other things of that kind. There are great numbers of poisonous serpents, and others of enormous size, many of which live on fish. It produces also abundance of sugar, indigo, pimento, ipecacuanha, and variety of other drugs; and above all the herb *Paraguay*, which it exports to the value of 100,000*l.* annually to the provinces of Chili and Peru. It is the leaf of a middle-sized tree, resembling an orange-tree, in taste not unlike mallows. There are three gatherings: first, the buds before it unfolds its leaves, which is the best, but soonest subject to decay; the second gathering is the full-grown leaves at the first expansion; the third is when the leaves have remained on some time after they are full blown. The leaves are roasted, and then kept in pits dug in the ground to be ready for sale. These trees grow principally in the morasses on the east side of Paraguay, but now are distributed all over the country. The manner of using it is, to dry and reduce it almost to powder, then put it into a cup with lemon-juice and sugar; boiling water is then poured on it, and the liquor drank as soon as may be. It is supposed to be serviceable in all disorders of the head, breast, and stomach; it preserves the miners from the noxious mineral steams with which they would otherwise be suffocated; is a sovereign remedy in putrid fevers and the scurvy; allays hunger; and purifies all kind of water, by infusing it therein. The country is diversified with forests, mountains, lowlands (great part of the year under water), fertile meadows, and morasses. Almost every forest abounds with bees, which have their hives in hollow trees. Besides cotton, the country produces hemp, flax, corn, rice, and wool; and there are such numbers of wild cattle, that they are killed only for their hides. The natives differ not materially from those described under the article AMERICA.

Paraguay, necessary, none what is superfluous. They also visit the sick, and see that they are properly taken care of. They are generally employed the whole day in these affairs, so that they have seldom time to assist the curate in his spiritual functions. All the boys and girls in the parish go to church every day in the week (except on festivals and Sundays), where they are instructed by the curate. On Sundays the whole parish goes to church to be instructed. The curate is besides obliged to go to confess the sick, and to administer the viaticum to those who desire it, and also to perform all the other functions peculiar to this office. In strictness the curate should be appointed in this manner. The society should nominate three persons to the governor of Buenos Ayres (in whose government the missions of Paraguay are included), as being vice-patron of the missions, that he may choose one of them for curate; and the curates should be instructed in the duties of their office by the bishop: but as the provincials of the order can best judge who are properly qualified for the office, the governor and bishop have ceded their rights to them, and by them the curates are always appointed. The missions of the Guaranies and the missions of the Chiquitos, into which the missions of Paraguay are divided, have each their distinct father-superior, by whom the coadjutors or assistant curates of the several towns in their respective divisions are appointed. These superiors are continually visiting the towns, to see that they be well governed, and to endeavour to improve and augment them. They likewise from time to time take care to send out some fathers of the order into the countries of the wild Indians to make new converts. The better to enable him to discharge these duties, the superior of the Guaranies is assisted by two vice superiors; one of whom resides in Parana, the other upon the banks of the river Uruguay, and the superior himself resides in the town of Candelaria. The post of superior of the Chiquitos is not near so troublesome as that of the superior of the Guaranies; for the Chiquitos are not only less numerous, but much more docile and industrious than the Guaranies, so that they need not be continually watched and attended in order to prevent their idleness. The king allows an annual stipend of 300 pezas to each curate of the Guaranies, for the maintenance of himself and his assistants. The money is paid to the superior, who issues out monthly to each curate as much as is necessary for his subsistence; and when they want any thing extraordinary, their wants are supplied upon application to him. But the Chiquitos maintain their own curates. In every town there is a plantation set apart for the maintenance of the curate, which is cultivated by the joint labour of all the inhabitants. The produce of these plantations is generally more than sufficient for the subsistence of the curates, and the surplus is sold to buy ornaments for the

churches. Nor are the curates the spiritual rectors of Paraguay. the towns only; they are also in effect the civil governors. It is true there are in every town of the missions a governor, regidores, and alcaides, as there are in the other towns and cities under the Spanish government. But though the governor is elected by the Indians, he must be approved by the curate before he enters upon his office; nor can he chastize or punish delinquents without the curate's permission. The curate examines those who are accused of offences; and, if he finds them guilty, delivers them to the governor to be punished, according to the nature and quality of the offence committed. He sometimes orders them to be imprisoned for a few days, sometimes to fast, and, when the fault is considerable, to be whipped, which is the severest punishment that is ever inflicted; for the regulations and instructions of the curates have been so efficacious, that murder and such like heinous crimes are never here committed. And even before they undergo these gentle corrections, the curate discourses the offenders in a mild friendly manner; and endeavours to excite in them a due sense of their crime, and of the ill consequences that might flow from it, and to convince them that they merit a much greater punishment than is inflicted. This mild treatment prevents tumults and insurrections, and acquires the curates universal veneration and esteem. The alcaides are chosen annually by the regidores. The governor, regidores, and alcaides are all Indians of the best capacities; and are in effect only so many overseers appointed by the curate, and dignified with these empty titles (c).

“ Every town has its armory or magazine, in which are lodged the fire-arms and other weapons wherewith the militia are armed when they take the field to repel the irruptions of the Portuguese and wild Indians. The militia are very dexterous and expert in the management of their arms; and are exercised on the eves of festivals in the squares or public places of the towns. The militia is composed of all those who are able to bear arms: they are formed into companies, which have each a proper number of officers chosen from amongst those who are most distinguished for judgment and conduct. The dress of the officers is rich, adorned with gold and silver, and the device of the town to which they belong: they always appear in their uniforms on festivals, and on the days of military exercise. The governor, alcaides, and regidores have also proper robes and dresses suitable to their respective offices, in which, they appear on public occasions. There are schools in every town, in which the common people are taught reading and writing, and also music and dancing; in which arts they become very skilful. The Jesuits are very careful in consulting the natural bent and genius of their scholars, and in directing their studies and application accordingly.

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(c) We call them *empty titles*; because in all causes the Jesuit or curate of the parish was a kind of sovereign, regarded as a petty prince, and obeyed as an oracle. Whatever forms might take place in the choice of the chiefs of the several departments, their success ultimately depended on him. The cacique held of him; the general received his commission and instructions from him; and all his decisions were without appeal. There were, we are informed, not less than 60,000 parishes on the banks of the rivers Uruguay and Parana, not exceeding the distance of 30 miles from each other; in each of which was a Jesuit or curate.

Paraguay. The lads of the most promising genius are taught the Latin tongue with great success. In one of the court-yards of every curate's house are various shops or workhouses of painters, carvers, gilders, silversmiths, carpenters, weavers, and clockmakers, and of several other mechanics and artizans, who daily work for the public under the direction of the coadjutors, and at the same time teach the youth their respective arts and occupations.

The churches are large, well built, finely decorated and enlightened, and not inferior to the richest in Peru. Each church has a choir of music, composed of instruments of all sorts, and very good voices; so that divine service is celebrated here with as much pomp and solemnity as in cathedrals: nor are the public processions less splendid, especially that of the host; which, whenever it is carried abroad, is attended by the governor, alcaldes, and regidores, in their robes, and also by the militia in a body. The houses of the Indians are as well built and as well furnished as most of the Spanish houses in Peru. The greatest part indeed have mud walls, others are built with brick, and some with stone, but all are covered with tiles. In every town there is an house where gunpowder is made, that they may never want it when they are obliged to take arms, and always have it ready to make artificial fire-works on rejoicing days: for all festivals are here observed with as great ceremony and exactness as in the greatest cities. Upon the proclamation of a new king of Spain, the governors, alcaldes, regidores, and officers of the militia, appear dressed in new robes and uniforms of a different fashion from those they wore before. There is a sort of a convent in every town; in one part whereof are confined women of an ill life, and the other part is destined for the reception of married women who have no family, and who retire thither when their husbands are absent. For the maintenance of this house, and for the support of orphans, and of old and infirm people, all the inhabitants of the town work two days in every week; and the profits of their labour, which is called *the labour of the community*, are set apart for this purpose. If the produce of this labour be more than is necessary for their subsistence, the surplus is laid out to buy ornaments for the churches, and clothes for the orphans and aged and infirm people; so that here are no beggars, nor any who want the necessaries of life. In short, by the wise policy and prudent regulations of the Jesuits, the whole community enjoys peace and happiness.

"The Guaranies are so profuse and negligent, that the curates are obliged to take into their hands all their goods and stuffs as soon as they are manufactured and made ready for sale; otherwise they would waste and destroy them, and not be able to maintain themselves. The Chiquitos, on the contrary, are diligent and frugal; so that the curates have no other trouble with them than the assisting them in the disposal of their goods, and procuring returns for them. For this purpose the society keeps a factor or procurator at Santa Fe and Buenos Ayres, to whom the merchandise of the missions is sent to be disposed of; and these factors return the value to the fathers in such sorts of European commodities as are wanted. The goods of every town are kept separate; and the royal taxes are taken out of them without any other dis-

counts or allowances, save the stipends of the curates of Paraguay, the Guaranies and the pensions of the caciques. The fathers choose to manage the commerce of their subjects themselves, lest they should contract vices by their communication with other people. In this respect the fathers are so careful, that they will not suffer any of the people of Peru, whether they be Spaniards, Mestizos, or Indians, to enter into the territories of the missions. They say that the Indians are but just recovered from a barbarous and dissolute way of life, and that their manners are now pure and innocent; but that if strangers were suffered to come among them, the Indians would soon get acquainted with people of loose lives: and as the Guaranies especially are very prone to vice, wickedness, disorder, and rebellion would soon be introduced; the society would lose all the souls they have converted; and their little republic would be utterly subverted. However, there are some who suspect that these are all specious pretences; and that the society's real motive for prohibiting all intercourse with strangers, is the fear of rivals in the beneficial commerce of Paraguay, which is now entirely in their hands."

Such is the account they themselves have given us of their own conduct: but others have treated their characters with more severity; accusing them of pride, haughtiness, and abusing their authority to the greatest degree; insomuch that they would have caused the magistrates to be whipped in their presence, and obliged persons of the highest distinction within their jurisdiction to kiss the hem of their garment, as the greatest honour at which they could possibly arrive. To this might be added, the utter abolition of all ideas of property; which indeed was rendered useless by the general magazines and store-houses which they established, and from which, together with the herds of cattle kept for the public use, they supplied the want of individuals as occasion required; yet still it was objected to the character of the fraternity, that they possessed large property themselves, and claimed the absolute disposal of the meanest effects in Paraguay. All manufactures belonged to them; every natural commodity was brought to them; and the treasures annually remitted to the superior of the order were thought to be a proof that zeal for religion was not the only motive by which they were influenced.

Besides the parochial or provincial governments, there was a kind of supreme council, composed of an annual meeting of all the fathers, who concerted the measures necessary for promoting the common concerns of the mission, framed new laws, corrected or abolished old ones, and, in a word, adapted every thing to circumstances. It is said to have been one of the great objects of the annual councils to take such measures as should effectually deprive strangers of all intelligence concerning the state of the mission. Hence the natives were restrained from learning the Spanish tongue, and were taught, that it was dangerous for their salvation to hold any conversation with a subject of Spain or Portugal. But the circumstance that rendered their designs most suspicious, was the establishment of a military force. Every parish had its corps of horse and foot, who were duly exercised every Sunday; and it was said, that the whole amounted to a body of 70,000 or 80,000 troops, well disciplined.

Such

Paralipomena.
Parallax.

Such was the state of this country some time ago; but as to its situation since the abolition of the sect of Jesuits we can say nothing, as very little authentic intelligence is permitted to pass from that country to this.

PARALIPOMENA, in matters of literature, denotes a supplement of things omitted in a preceding work.

PARALEPSIS. See ORATORY, n° 87.

PARALLACTIC, in general, something relating to the parallax of heavenly bodies. See PARALLAX.

PARALLAX, in astronomy, is the difference between the places of any celestial object as seen from the surface, and from the centre of the earth at the same instant.

Illustration.

Let E in figure of parallax, Plate CCCLXXVI. represent the centre of the earth, O the place of an observer on its surface, whose visible horizon is OH, and true horizon EF: Now let ZDT be a portion of a great circle in the heavens, and A the place of any object in the visible horizon; join EA, and produce it to C; then C is the true place of the object, and H is its apparent place, and the angle CAH is the parallax; or, because the object is in the horizon, it is called the *horizontal parallax*. But OAE, the angle which the earth's radius subtends at the object, is equal to CAH: Hence the horizontal parallax of an object may be defined to be the angle which the earth's semidiameter subtends at that object. For the various methods hitherto proposed to find the quantity of the horizontal parallax of an object, see ASTRONOMY, n° 384–399 inclusive.

The whole effect of parallax is in a vertical direction: For the parallactic angle is in the plane passing through the observer and the earth's centre; which plane is necessarily perpendicular to the horizon, the earth being considered a sphere.

The parallax decreases with the distance of the object from the zenith.

The more elevated an object is above the horizon, the less is the parallax, its distance from the earth's centre continuing the same. When the object is in the zenith, it has no parallax; but when in the horizon, its parallax is greatest. The horizontal parallax being given, the parallax at any given altitude may be found by the following rule:

The sine of the parallax in alt. is to the sine of the hor. par. as the cosine of apparent altitude to the radius.

To the logarithmic cosine of the given altitude, add the log. sine of the horizontal parallax, the sum, rejecting 10 from the index, will be the log. sine of the parallax in altitude.

Demonstration. Let B be the place of an object produce OB, ED to F and D; then the angle BOZ will be the apparent altitude of the object, BEZ the true altitude, and OBE the parallax in altitude. Now in the triangle AOE,

$$R : \text{fine OAE} :: EA : EO.$$

And in the triangle OBE

$$BE (=EA) : EO :: \text{fine BOE} : \text{fine OBE}.$$

$$\text{Hence } R : \text{cosine BOA} :: \text{fine OAE} : \text{fine OBE}.$$

As the two last terms are generally small quantities, the arch may be substituted in place of its sine without any sensible error.

Example. Let the apparent altitude of the moon's centre be $39^{\circ} 25'$, and the moon's horizontal parallax $56' 54''$. Required the parallax in altitude?

Moon's apparent alt. $39^{\circ} 25'$ cosine 9.8879260

Moon's horizontal par. $56' 54''$ fine 8.2188186

Moon's par. in altitude $43' 57''$ fine 8.1067446

As the apparent place of an object is nearer the horizon than its true place, the parallax is therefore to be added to the apparent altitude, to obtain the true altitude. Hence also an object will appear to rise later and set sooner.

The sine of the parallax of an object is inversely as its distance from the earth's centre.

Demonstration. Let A be the place of an object, and H the place of the same object at another time, or that of another object at the same instant; join EH, then in the triangles AOE, HOE.

$$R : \text{fine OAE} :: AE : OE$$

$$\text{fine OHE} : R :: OE : EH$$

$$\text{Hence fine OHE} : \text{fine OAE} :: AE : EH.$$

The parallax of an object makes it appear more distant from the meridian than it really is.

Demonstration. The true and apparent places of an object are in the same vertical, the apparent place being lower than the true; and all verticals meet at the zenith: hence the apparent place of an object is more distant from the plane of the meridian than the true place.

The longitude, latitude, right ascension, and declination of an object, are affected by parallax. The difference between the true and apparent longitudes is called the *parallax in longitude*; in like manner, the difference between the true and apparent latitudes, right ascensions, and declinations, are called the *parallax in latitude, right ascension, and declination*, respectively. When the object is in the nonagesimal, the parallax in longitude is nothing, but that in latitude is greatest: and when the object is in the meridian, the parallax in right ascension vanishes, and that in declination is a maximum. The apparent longitude is greater than the true longitude, when the object is east of the nonagesimal, otherwise less; and when the object is in the eastern hemisphere, the apparent right ascension exceeds the true, but is less than the true right ascension when the object is in the western hemisphere. The apparent place of an object is more distant from the elevated poles of the ecliptic and equator than the true place: hence, when the latitude of the place and elevated pole of the ecliptic are of the same name, the apparent latitude is less than the true latitude, otherwise greater; and the apparent declination will be less or greater than the true declination, according as the latitude of the place, and declination of the object, are of the same or of a contrary denomination.

The parallaxes in longitude, latitude, right ascension, and declination, in the spheroidal hypothesis, may be found by the following formulæ; in which L represents the latitude of the place, diminished by the angle contained between the vertical and radius of the given place; P the horizontal parallax for that place; a the altitude of the nonagesimal at the given instant; d the apparent distance of the object from the nonagesimal; λ the true and apparent latitudes of the object; D the true and apparent declinations respectively; and m its apparent distance from the meridian.

Then par. in long. = $P. \text{ fine } a. \text{ fine } d. \text{ secant } L$, to radius unity; and par. in lat. = $P. \text{ cosine } a. \text{ cosine } \lambda = p. \text{ cosine } d. \text{ fine } a. \text{ fine } \lambda$.

The sign — is used when the apparent distance of the object from the nonagesimal and from the elevated pole of the ecliptic are of the same affection, and the sign

Parallax.

The sine of the parallax of an object in the inverse ratio of its distance from the earth's centre.

Parallax increases the apparent distance of an object from the meridian.

Parallax in longitude, latitude, right ascension, and declination.

Parallax
||
Parallelo-
pipedia.

sign $\pm$ if of different affection. If the greatest precision be required, the following quantity 0.00000121216. par. long. $^{\circ}$, sine 2° , is to be applied to the parallax in latitude found as above, by addition or subtraction, according as the true distance of the object from the elevated pole of the ecliptic is greater or less than 90° .

Again, par. in right ascen. = P. cosine L. sine m . secant D, to radius unity; and par. in declination = P. sine L. cosine δ = P. cosine L. sine δ , cosine m .

The upper or lower sign is to be used, according as the distance of the object from the meridian and from the elevated pole of the equator are of the same or different affection. Part 2d. of par. in declination = 0.00000121216 par. in right ascen. $^{\circ}$, sine 2° D; which is additive to, or subtractive from, part first of parallax in declination, according as the true distance of the object from the elevated pole of the equator is greater or less than 90° . For the moon's parallax see ASTRONOMY, N^o 384 and 385. There is also a curious paper in the first volume of Asiatic Researches, p. 320, &c. on the same subject, to which we refer our readers.

PARALLAX of the Earth's annual Orbit, is the difference between the places of a planet as seen from the sun and earth at the same instant. The difference between the longitudes of the planet as seen from the sun and earth is called the *parallax in longitude*; and the difference between its latitudes is the *parallax in latitude*.

PARALLAX, is also used to denote the change of place in an object arising from viewing it obliquely with respect to another object. Thus the minute hand of a watch is said to have a parallax when it is viewed obliquely; and the difference between the instants shown by it, when viewed directly and obliquely, is the quantity of parallax in time.

PARALLEL, in geometry, an appellation given to lines, surfaces, and bodies, everywhere equidistant from each other. See GEOMETRY.

PARALLEL Sphere, that situation of the sphere wherein the equator coincides with the horizon, and the poles with the zenith and nadir.

PARALLEL Sailing. See NAVIGATION, Book I. Ch. iv. p. 689.

PARALLELS of Latitude, in astronomy, are lesser circles of the sphere parallel to the ecliptic, imagined to pass through every degree and minute of the colures.

PARALLELS of Altitude, or *Almucantars*, are circles parallel to the horizon, imagined to pass through every degree and minute of the meridian between the horizon and zenith, having their poles in the zenith.

PARALLELS of Declination, in astronomy, are the same with parallels of latitude in geography.

PARALLELOPIPED, in geometry, a regular solid comprehended under six parallelograms, the opposite ones whereof are similar, parallel, and equal to each other.

PARALLELOPIPEDIA, in natural history, a genus of spars, externally of a determinate and regular figure, always found loose, detached, and separate from all other bodies, and in form of an oblique parallelo-piped, with six parallelogram sides and eight solid angles; easily fissile either in an horizontal or perpendicular direction; being composed of numbers of

thin plates, and those very elegantly and regularly arranged bodies, each of the same form with the whole mass, except that they are thinner in proportion to their horizontal planes, and naturally fall into these and no other figures, on being broken with a slight blow.

PARALOGISM, in logic, a false reasoning, or a fault committed in demonstration, when a consequence is drawn from principles that are false; or, though true, are not proved; or when a proposition is passed over that should have been proved by the way.

PARALYSIS, the Palsy. See MEDICINE, N^o 265.

PARAMECIA, in natural history, a name given to such animalcules as have no visible limbs or tails, and are of an irregularly oblong figure.

PARAMOUNT, (compounded of two French words, *par*, i. e. *per*, and *monter*, *ascendere*), signifies in our law the "highest lord of the fee, of lands, tenements, and hereditaments." As there may be a lord mesne where lands are held of an inferior lord, who holds them of a superior under certain services; so this superior lord is lord *paramount*. Also the king is the chief lord, or lord *paramount* of all the lands in the kingdom. *Co. Lit.* 1.

PARANYMPH, among the ancients, the person who waited on the bridegroom, and directed the nuptial solemnities; called also *pronubus* and *auspex*, because the ceremonies began by taking auspicia. As the paranymphe officiated only on the part of the bridegroom, a woman called *pronuba* officiated on the part of the bride.

PARAPET, in fortification, an elevation of earth designed for covering the soldiers from the enemy's cannon or small shot. See FORTIFICATION.

PARAPHERNALIA, or PARAPHERNA, in the civil law, those goods which a wife brings her husband besides her dower, and which are still to remain at her disposal exclusive of her husband, unless there is some provision made to the contrary in the marriage-contract. Some of our English civilians define the paraphernalia to be such goods as a wife challengeth over and above her dower or jointure, after her husband's death; as furniture for her chamber, wearing apparel, and jewels, which are not to be put into the inventory of her husband's goods; and a French civilian calls paraphernalia the moveables, linen, and other female necessities, which are adjudged to a wife in prejudice of the creditors, when she renounces the succession of her husband.

PARAPHIMOSIS, a disorder of the penis, wherein the prepuce is shrunk, and withdrawn behind the glans, so as not to be capable of being brought to cover the same; which generally happens in venereal disorders. See SURGERY.

PARAPHRASE, an explanation of some text in clearer and more ample terms, whereby is supplied what the author might have said or thought on the subject. Such are esteemed Erasmus's paraphrase on the New Testament, the Chaldee Paraphrase on the Pentateuch, &c.

PARAPHRENITIS, an inflammation of the diaphragm. See DIAPHRAGM, and *Index to MEDICINE*.

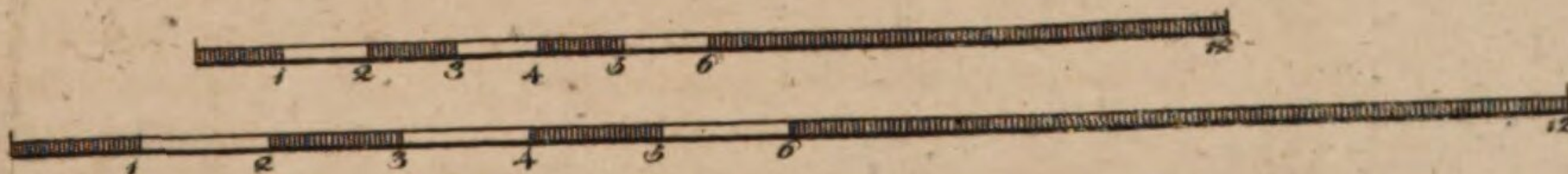
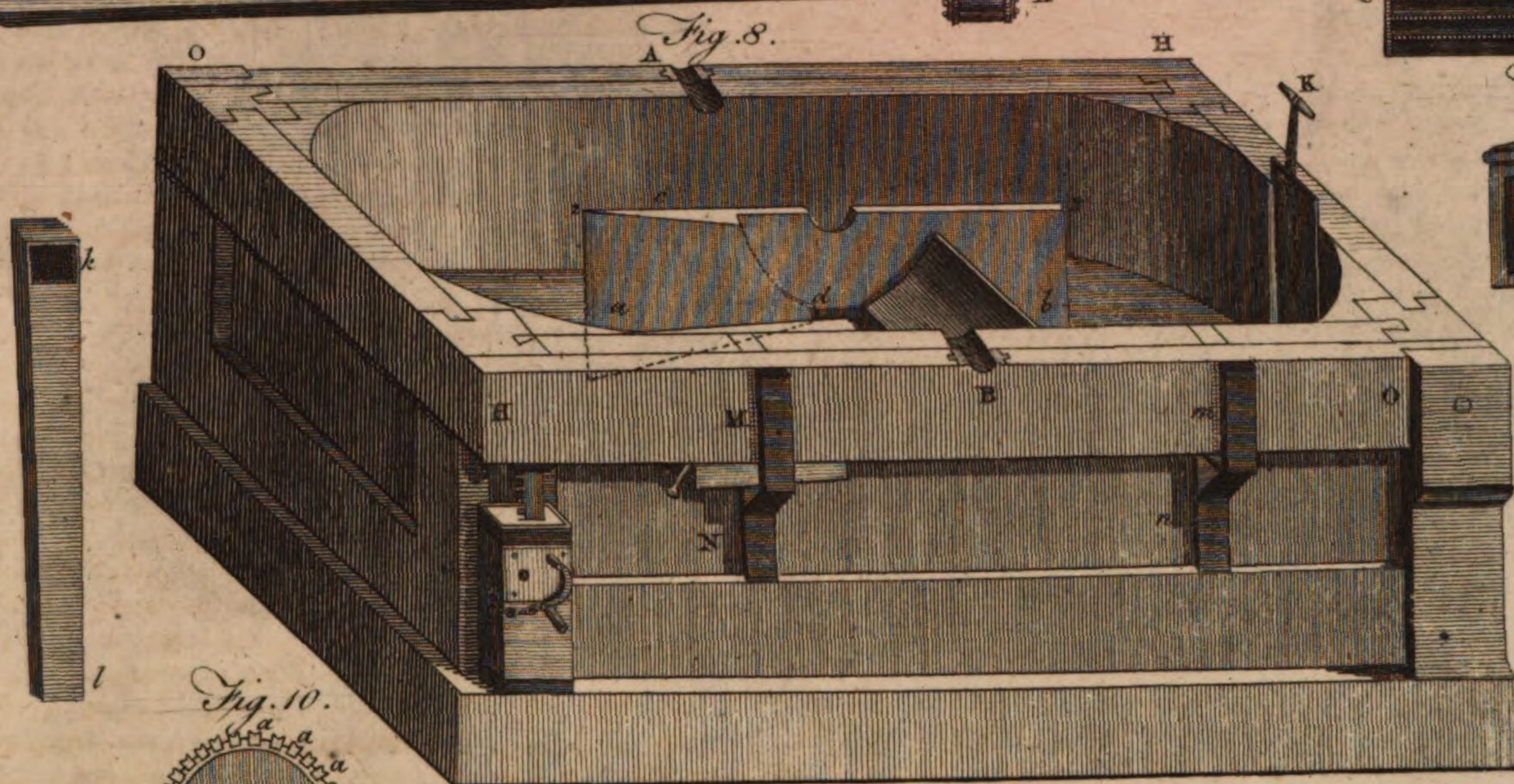
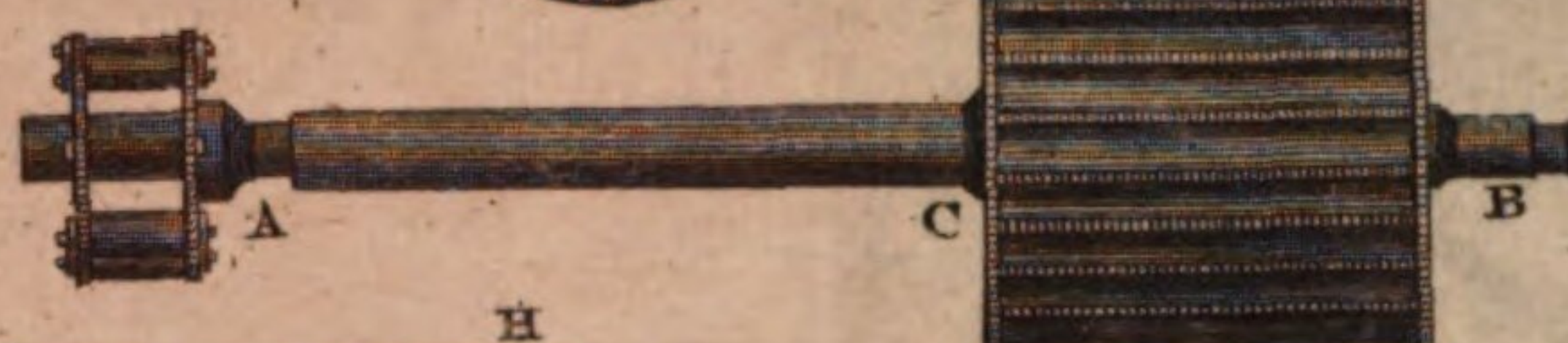
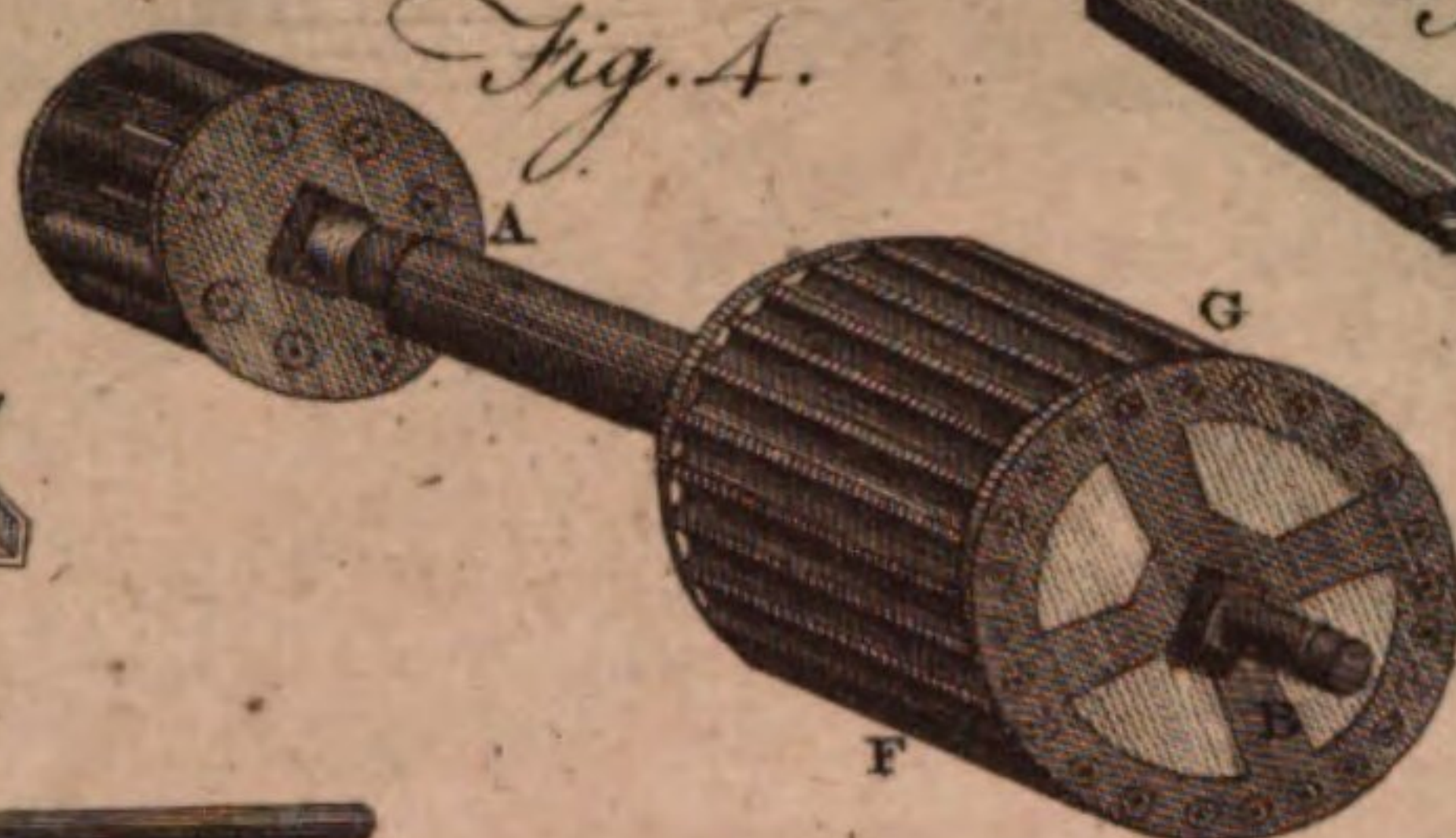
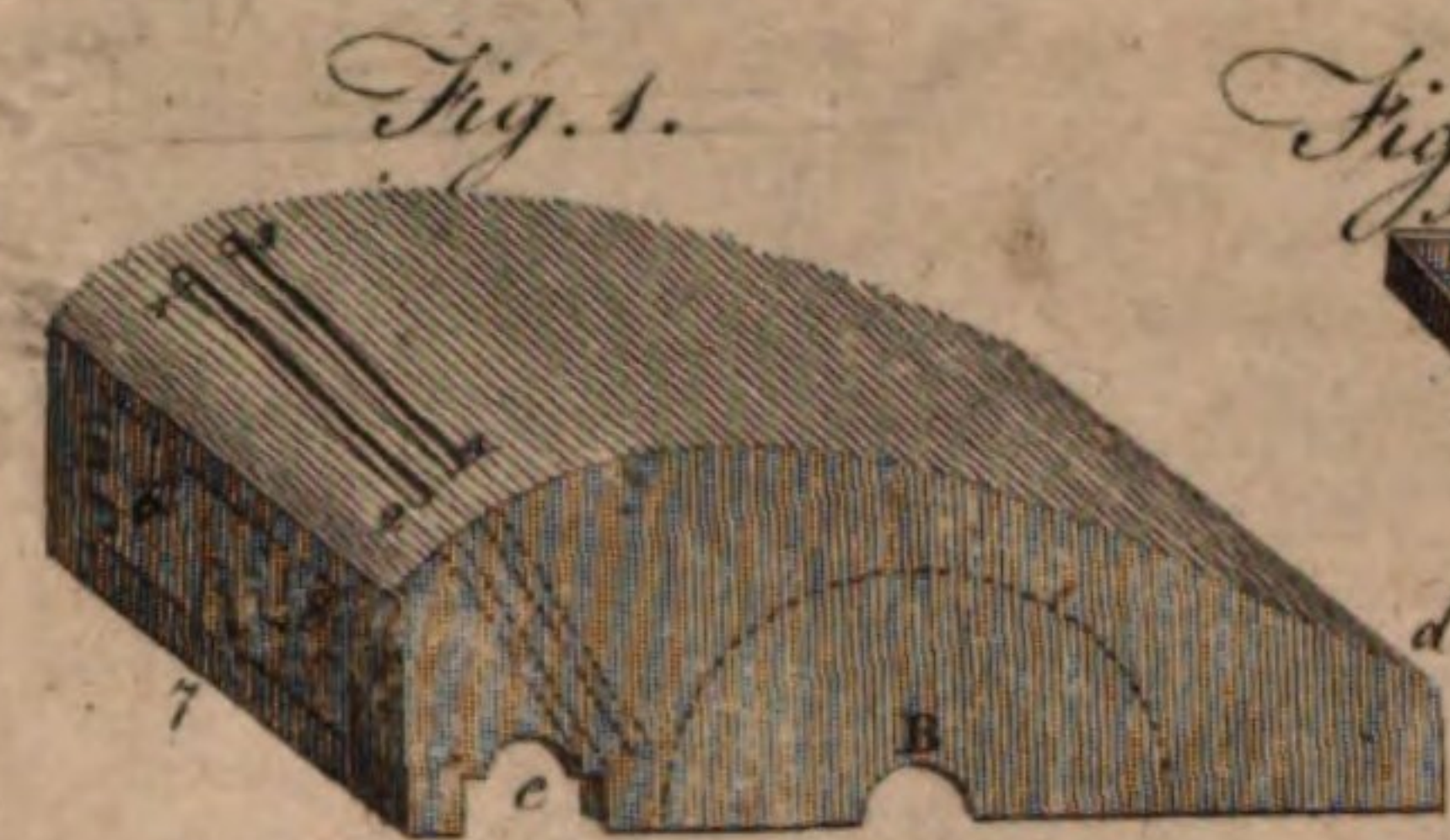
PARAPHROSYNE, a word used by medical writers to denote a delirium, or an alienation of mind in fevers, or from whatever other cause.

PARA-

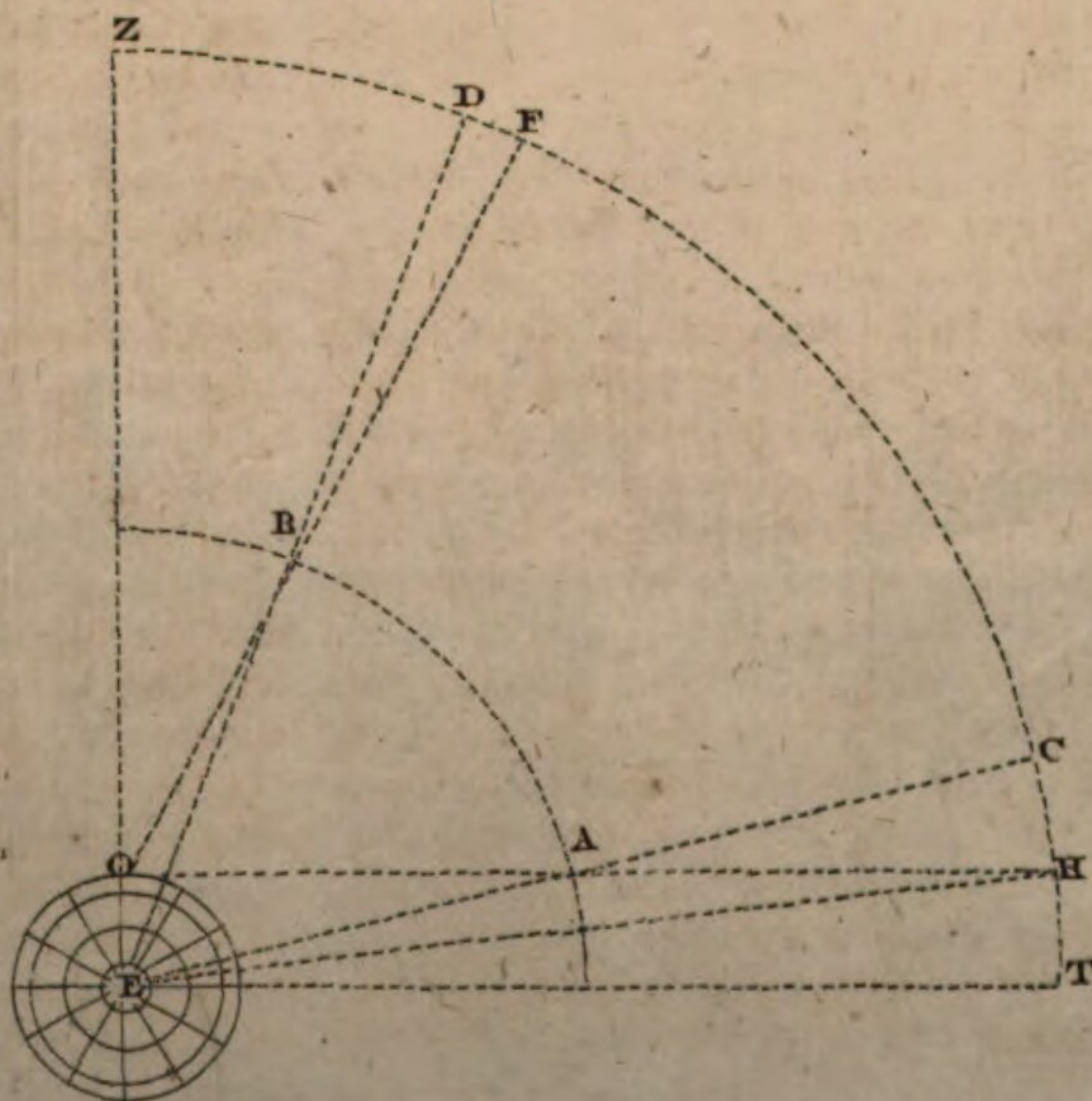
Paralo-
gism
||
Paraphro-
syne.

PAPER MILL.

Plate CCCLXXVI.



Parallax.



A. Bell Prin. Wal. Sculptor fecit.

Paraple-
gia
||
Parcæ.

PARAPLEGIA, a species of palsy. See MEDICINE, n° 268.

PARASANG, an ancient Persian measure, different at different times, and in different places; being usually 30, sometimes 40, and sometimes 50 stadia, or furlongs.—The word, according to Littleton, has its rise from *parafch angarius*, *q. d.* the space a post-man rides from one station, *angaria*, to another.

PARASCENIUM, in the Grecian and Roman theatres, was a place behind the scenes whither the actors withdrew to dress and undress themselves. The Romans more frequently called it *Postscenium*. See THEATRE.

PARASELENE, in natural philosophy, a mock moon; a meteor or phenomenon encompassing or adjacent to the moon, in form of a luminous ring; wherein are observed sometimes one and sometimes two or more images of the moon.

PARASEMON, among the Greeks, was the figure carved on the prow of the ships to distinguish them from each other. This figure was generally that of a bull, lion, or other animal; sometimes the representation of a mountain, tree, flower, &c.

PARASITE, among the Greeks, was originally a very reputable title; the parasites being a kind of priests, at least ministers, of the gods, in the same manner as the epulones were at Rome. They took care of the sacred corn, or the corn destined for the service of the temples and the gods, *viz.* sacrifices, feasts, &c. They had even the intendance over sacrifices; and took care that they were duly performed. At Athens there was a kind of college of 12 parasites; each people of Attica furnishing one, who was always chosen out of the best families. Polybius adds, that a parasite was also an honourable title among the ancient Gauls, and was given to their poets. But of late it has been made a term of reproach, and used for a flatterer or mean dependent.

PARASITES, or *PARASITICAL Plants*, in botany, such plants as are produced out of the trunk or branches of other plants, from whence they receive their nourishment, and will not grow on the ground. Such are the Mistletoe, &c.

PARASTATÆ, in anatomy. See PROSTATE.

PARATALASSIA. See PRIMORIE.

PARBUNCLE, in a ship, the name of a rope almost like a pair of slings: it is seized both ends together, and then put almost double about any heavy thing that is to be hoisted in or out of the ship; having the hook of the runner hitched into it, to hoist it up by.

PARCÆ, in heathen mythology, goddesses who were supposed to preside over the accidents and events, and to determine the date or period of human life.

The Parcæ were three, Clotho, Lachesis, and Atropos; because, forsooth, all things have their beginning, progress, and end. Hence the poets tell us, the Parcæ spun the thread of mens lives; that Clotho held the distaff, and drew the thread; Lachesis twirled the spindle, and spun it; and Atropos cut it. *Clotho colum retinet, Lachesis net, Atropos occat.*

The ancients represent the Parcæ divers ways: Lucian, in the shape of three poor old women, having large locks of wool, mixed with daffodils on their heads; one of which holds a distaff, the other a wheel, and the third a pair of scissars, wherewith to cut the

thread of life. Others represent them otherwise: Clotho appearing in a long robe of divers colours, wearing a crown upon her head adorned with seven stars, and holding a distaff in her hand; Lachesis in a robe beset with stars, with several spindles in her hand; and Atropos, clad in black, cutting the thread with a pair of large scissars.

The ancients imagined that the Parcæ used white wool for a long and happy life, and black for a short and unfortunate one. See *Necessity* in MYTHOLOGY.

PARCHMENT, the skins of sheep or goats prepared after such a manner as to render it proper for writing upon, covering books, &c.

The word comes from the Latin *pergamena*, the ancient name of this manufacture; which is said to have been taken from the city Pergamos, to Eumenes king whereof its invention is usually ascribed; though, in reality, that prince appears rather to have been the improver than the inventor of parchment. For the Persians of old, according to Diodorus, wrote all their records on skins; and the ancient Ionians, as we are told by Herodotus, made use of sheep skins and goat-skins in writing, many ages before Eumenes's time. Nor need we doubt that such skins were prepared and dressed for that purpose, after a manner not unlike that of our parchment; though probably not so artificially.—The manufacture of parchment is begun by the skinner, and finished by the parchment-maker.

The skin having been stripped of its wool, and placed in the lime-pit, in the manner described under the article SHAMMY, the skinner stretches it on a kind of frame, and pares off the flesh with an iron instrument; this done, it is moistened with a rag; and powdered chalk being spread over it, the skinner takes a large pumice-stone, flat at bottom, and rubs over the skin; and thus scowers off the flesh; he then goes over it again with the iron instrument, moistens it as before, and rubs it again with the pumice-stone without any chalk underneath: this smooths and softens the flesh-side very considerably. He then drains it again, by passing over it the iron instrument as before. The flesh-side being thus drained, by scraping off the moisture, he in the same manner passes the iron over the wool or hair-side: then stretches it tight on a frame, and scrapes the flesh-side again: this finishes its draining; and the more it is drained the whiter it becomes. The skinner now throws on more chalk, sweeping it over with a piece of lamb-skin that has the wool on; and this smooths it still farther. It is now left to dry, and when dried, taken off the frame by cutting it all round. The skin thus far prepared by the skinner, is taken out of his hands by the parchment-maker, who first, while it is dry, pares it on a summer, (which is a calf-skin stretched in a frame), with a sharper instrument than that used by the skinner; and working with the arm from the top to the bottom of the skin, takes away about one half of its thickness. The skin thus equally pared on the flesh-side, is again rendered smooth, by being rubbed with the pumice-stone, on a bench covered with a sack stuffed with flocks; which leaves the parchment in a condition fit for writing upon. The parings thus taken off the leather, are used in making glue, size, &c. See the article GLUE, &c.

What is called *vellum* is only parchment made of the skins of abortives, or at least sucking calves. This

Parchment.

Pardalis
||
Pardon.

has a much finer grain, and is whiter and smoother than parchment; but is prepared in the same manner, except its not being passed through the lime-pit.

PARDALIS, in natural history. See FELIS.

PARDIES (Ignatius Gaston), an ingenious and learned French Jesuit, born at Paris in 1636. He taught polite literature for several years; during which time he composed several small pieces, both in prose and verse, with peculiar delicacy of thought and style. At length he devoted himself entirely to mathematics and natural philosophy, and read all authors, ancient as well as modern, in those branches of knowledge. He died in 1673, of an infectious disorder contracted by confessing and preaching to the prisoners in the Bicetre during the Easter holidays. Father Pardies published several works; of which his Elements of Geometry are well known in this country, where a translation of them has gone through several editions. In 1672 he had a dispute with Sir Isaac Newton respecting his Theory of Light and Colours; which may be seen in the Philosophical Transactions for that year.

PARDON, in criminal law, is the remitting or forgiving an offence committed against the king.

Beccaria on
Crimes and
Punish-
ments.

Law (says an able writer), cannot be framed on principles of compassion to guilt; yet justice, by the constitution of England, is bound to be administered in mercy: this is promised by the king in his coronation oath; and it is that act of his government which is the most personal and most entirely his own. The king condemns no man; that rugged task he leaves to his courts of justice: the great operation of his sceptre is mercy. His power of pardoning was said by our Saxon ancestors to be derived *à lege sue dignitatis*: and it is declared in parliament, by stat. 27 Hen. VIII. c. 24. that no other person hath power to pardon or remit any treason or felonies whatsoever; but that the king hath the whole and sole power thereof, united and knit to the imperial crown of this realm.

This is indeed one of the great advantages of monarchy in general above any other form of government, that there is a magistrate who has it in his power to extend mercy wherever he thinks it is deserved; holding a court of equity in his own breast, to soften the rigour of the general law, in such criminal cases as merit an exemption from punishment. Pardons (according to some theorists) should be excluded in a perfect legislation, where punishments are mild, but certain; for that the clemency of the prince seems a tacit disapprobation of the laws. But the exclusion of pardons must necessarily introduce a very dangerous power in the judge or jury; that of construing the criminal law by the spirit instead of the letter; or else it must be holden, what no man will seriously avow, that the situation and circumstances of the offender (though they alter not the essence of the crime) ought to make no distinction in the punishment. In democracies, however, this power of pardon can never subsist; for there nothing higher is acknowledged than the magistrate who administers the laws: and it would be impolitic for the power of judging and of pardoning to centre in one and the same person. This (as the president Montesquieu observes) would oblige him very often to contradict himself, to make and to unmake his decisions: it would tend to confound all ideas of right among the mass of people; as they would find it dif-

Nº 259.

ficult to tell, whether a prisoner were discharged by his innocence, or obtained a pardon through favour. In Holland, therefore, if there be no stadtholder, there is no power of pardoning lodged in any other member of the state. But in monarchies the king acts in a superior sphere; and though he regulates the whole government as the first mover, yet he does not appear in any of the disagreeable or invidious parts of it. Whenever the nation see him personally engaged, it is only in works of legislature, magnificence, or compassion. To him therefore the people look up as the fountain of nothing but bounty and grace; and these repeated acts of goodness, coming immediately from his own hand, endear the sovereign to his subjects, and contribute more than any thing to root in their hearts that filial affection and personal loyalty which are the sure establishment of a prince.

The king may pardon all offences merely against the crown or the public; excepting, 1. That, to preserve the liberty of the subject, the committing any man to prison out of the realm, is by the *habeas corpus* act, 31 Car. II. c. 2. made a *præmunire*, unpardonable even by the king. Nor, 2. can the king pardon, where private justice is principally concerned in the prosecution of offenders: *Non potest rex gratiam facere cum injuria et damno aliorum*. Therefore, in appeals of all kinds (which are the suit, not of the king, but of the party injured), the prosecutor may release; but the king cannot pardon. Neither can he pardon a common nuisance, while it remains unredressed, or so as to prevent an abatement of it; though afterwards he may remit the fine: because though the prosecution is vested in the king to avoid the multiplicity of suits, yet (during its continuance) this offence favours more of the nature of a private injury to each individual in the neighbourhood, than of a public wrong. Neither, lastly, can the king pardon an offence against a popular or penal statute, after information brought; for thereby the informer hath acquired a private property in his part of the penalty.

There is also a restriction of a peculiar nature, that affects the prerogative of pardoning, in case of parliamentary impeachments, viz. that the king's pardon cannot be pleaded to any such impeachment, so as to impede the inquiry, and stop the prosecution of great and notorious offenders. Therefore, when, in the reign of Charles II. the earl of Danby was impeached by the house of commons of high treason and other misdemeanors, and pleaded the king's pardon in bar of the same, the commons alleged, "That there was no precedent that ever any pardon was granted to any person impeached by the commons of high treason, or other high crimes, depending the impeachment;" and thereupon resolved, "That the pardon so pleaded was illegal and void, and ought not to be allowed in bar of the impeachment of the commons of England:" for which resolution they assigned this reason to the house of lords, "That the setting up a pardon to be a bar of an impeachment defeats the whole use and effect of impeachments: for should this point be admitted, or stand doubted, it would totally discourage the exhibiting any for the future; whereby the chief institution for the preservation of the government would be destroyed." Soon after the Revolution, the commons renewed the same claim, and voted,

Pardon. voted, "That a pardon is not pleadable in bar of an impeachment." And at length, it was enacted by the act of settlement, 12 & 13 W. III. c. 2. "That no pardon under the great seal of England shall be pleadable to an impeachment by the commons in parliament." But, after the impeachment has been solemnly heard and determined, it is not understood that the king's royal grace is farther restrained or abridged: for, after the impeachment and attainder of the six rebel lords in 1715, three of them were from time to time reprieved by the crown; and at length received the benefit of the king's most gracious pardon.

The effect of such pardon by the king, is to make the offender a new man; to acquit him of all corporal penalties and forfeitures annexed to that offence for which he obtains his pardon; and not so much to restore his former, as to give him a new credit and capacity. But nothing can restore or purify the blood when once corrupted, if the pardon be not allowed till after attainder, but the high and transcendent power of parliament. Yet if a person attainted receives the king's pardon, and afterwards hath a son, that son may be heir to his father; because the father being made a new man, might transmit new inheritable blood; tho', had he been born before the pardon, he could never have inherited at all.

Such is the nature of pardons in this kingdom. These, like other good things, may doubtless be abused; and if they are in any instance, their abuse deserves censure: but that in their nature they should be counted absurd, arbitrary, and destructive of morality, can, we suspect, proceed from nothing but from the presumptive petulance of modern reformers, or from the new system of civil equality.

Godwin's
Inquiry con-
cerning Po-
litical
Justice.

We are told, however, by a late champion for the Rights of Man, that "the very word to a reflecting mind is fraught with absurdity. 'What is the rule that ought in all cases to prescribe to my conduct?' Surely justice: understanding by justice the greatest utility of the whole mass of beings that may be influenced by my conduct. 'What then is clemency?' It can be nothing but the pitiable egotism of him who imagines he can do something better than justice. 'Is it right that I should suffer constraint for a certain offence?' The rectitude of my suffering must be founded in its tendency to promote the general welfare. He therefore that pardons me, iniquitously prefers the imaginary interest of an individual, and utterly neglects what he owes to the whole. He bestows that which I ought not to receive, and which he has no right to give. 'Is it right, on the contrary, that I should not undergo the suffering in question? Will he, by rescuing me from suffering, do a benefit to me, and no injury to others?' He will then be a notorious delinquent, if he allow me to suffer. There is indeed a considerable defect in this last supposition. If, while he benefits me, he do no injury to others, he is infallibly performing a public service. If I suffered in the arbitrary manner which the supposition includes, the whole would sustain an unquestionable injury in the injustice that was perpetrated. And yet the man who prevents this odious injustice, has been accustomed to arrogate to himself the attribute of clement, and the apparently sublime, but in reality tyrannical, name of

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Pardon forgiveness. For, if he do more than has been here described, instead of glory he ought to take shame to himself, as an enemy to the interest of human kind. If every action, and especially every action in which the happiness of a rational being is concerned, be susceptible of a certain rule, then caprice must be in all cases excluded: there can be no action, which if I neglect, I shall have discharged my duty; and, if I perform, I shall be intitled to applause."

Such is the reasoning of this zealous democrat; reasoning which, in our opinion, betrays want of feeling or ignorance of human nature. That human nature is such as, in the aggregate, to need controul, no one who is acquainted with it will deny; and there appears to be no other method of controuling mankind but by general laws; and these laws may, through the natural imperfection of human affairs, be cruel in one case, where they are just in another. Cases may likewise occur where the sentence of the law, without its execution, will answer every purpose which could be expected from it; and where the execution of it would be extreme cruelty, though it might in strict unfeeling language be called *justice*, because in conformity with the letter of the law: Yet though such cases may and do often occur, it would indeed be absurd to abolish any of those laws which the security of civil society has required; and therefore the only natural remedy against *legal injustice* is the *system of pardons*.

Our author next goes on to trace the origin of pardons; and instead of a definite system of law, we are told that it is necessary to have a court of reason, to which the decisions of a court of law shall be brought for revival: a remedy apparently too vague and indeterminate to produce any lasting or good effect; and the proposal of which results from supposing mankind more virtuous and more knowing than they really are. We are next led to consider the abuses of pardons: from whence our author would draw an argument for their abolition; a species of reasoning unfair and unphilosophical. He tells us, that the authority in this case is placed first in the judge and next in the king and council. "Now (says he), laying aside the propriety or impropriety of this particular selection, there is one grievous abuse which ought to strike the most superficial observer. These persons, with whom the principal trust is reposed, consider their functions in this respect as a matter purely incidental, exercise them with supineness, and in many instances with the most scanty materials to guide their judgment. This grows in a considerable degree out of the very name of pardon, which implies a work of supererogatory benevolence."

Now it is obvious to remark, that pardons are in general granted in consequence of an application from people who have more *than scanty materials to guide their judgments*, and on whose fidelity in relating the circumstances of the case, confidence is placed or not according to their several characters. Our author next proceeds to the arbitrary character of pardons. "Such a system (he says), to speak it truly, is a lottery of death, in which each man draws his ticket for reprieve or execution, as undefinable accidents shall decide." The allusion here to a lottery-ticket is peculiarly unfortunate and indelicate, nor does the whole sentence show any great degree of candour. It is possible to define

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Pardon. a particular crime, and to annex a particular punishment to the commission of it; but the nature of morality consists not in the external action, but in the motives which prompted to it. Definite law cannot, however, always make this distinction; and after the sentence of the law is pronounced, it comes to be considered whether there are any alleviating circumstances in the case; and whether there are or not, must depend on the particulars or accidents of the case: and it is indeed impossible to suppose that these accidents could be previously defined; their nature does not admit of it. To particularize and define every mode of an action which imagination can conceive, or which experience has shown us may happen, would indeed be an Herculean labour; and we might literally say with the apostle, *that the world could not contain the books that might be written*. We are, however, told, that "reason is a thousand times more explicit and intelligible than law; and when we are accustomed to consult her, the certainty of her decisions would be such, as men practised in our present courts are totally unable to conceive." Were reason, however, appointed to be appealed to in all cases, and to be the final criterion, it would leave far greater room for villany than any mode at present in practice. *Reason* is a very uncertain and indefinite term, and may be made any thing, according to the circumstances or passions of men. Our reforming neighbours the French have raised a statue to *reason* and to *truth*; but what claim they have to either, Mr Godwin must himself decide.

We are next told that pardons are destructive to morality. "Another very important consequence (says our author) grows out of the system of pardons. A system of pardons is a system of unmitigated slavery. I am taught to expect a certain desirable event, from what? From the clemency, the uncontroled, unmerited kindness of a fellow mortal. Can any lesson be more degrading? The pusillanimous servility of the man who devotes himself with everlasting obsequiousness to another, because that other having begun to be unjust, relents in his career; the ardour with which he confesses the rectitude of his sentence and the enormity of his deserts, will constitute a tale that future ages will find it difficult to understand. What are the sentiments in this respect that are alone worthy of a rational being? Give me that, and that only, which without injustice you cannot refuse. More than justice it would be disgraceful for me to ask, and for you to bestow. I stand upon the foundation of right. This is a title which brute force may refuse to acknowledge, but which all the force in the world cannot annihilate. By resisting this plea you may prove yourself unjust, but in yielding to it you grant me but my due. If, all things considered, I be the fit subject of a benefit, the benefit is merited: merit in any other sense is contradictory and absurd. If you bestow upon me unmerited advantage, you are a recreant from the general good. I may be base enough to thank you; but if I were virtuous, I should condemn you. These sentiments alone are consistent with true independence of mind. He that is accustomed to regard virtue as an affair of favour and grace, cannot be eminently virtuous. If he occasionally perform an action of apparent kindness, he will applaud the generosity of his senti-

ments; and if he abstain, he will acquit himself with the question, 'May I not do what I will with my own? In the same manner, when he is treated benevolently by another, he will in the first place be unwilling to examine strictly into the reasonableness of this treatment, because benevolence, as he imagines, is not subject to any inflexibility of rule; and, in the second place, he will not regard his benefactor with that erect and unembarrassed mien, that complete sense of equality, which is the only immovable basis of virtue and happiness.'

Such is Mr Godwin's conclusion on this subject; and we leave it with our readers to determine, whether his system or that which we at present enjoy would be the more rigorous or unjust; or whether mankind are indeed arrived at that eminent pitch of virtue, as to disdain every favour which they do not absolutely merit. The Christian religion speaks a different language: but amidst the rage of popular reform, its *small still voice* is unheard and neglected.

PAREGORIES, in pharmacy, medicines that assuage pain, otherwise called **ANODYNES**.

PAREIRA FRAYA, in the materia medica, a kind of oblong and large root brought from the Brasils.—It is certainly a diuretic of no mean character, and has done great service in nephritic cases. In pleuritis and quinsies, it has been attended with more success than almost any medicine we know of singly.

PARELCON, in grammar, a figure by which a word or syllable is added to the end of another.

PAREMBOLE, in rhetoric, a figure wherein something relating to the subject is inserted in the middle of a period. All the difference between the parembole and parenthesis, according to Vossius, is, that the former relates to the subject in hand, whereas the latter is foreign to it.

PARENCHYMA, in anatomy, a term introduced by Erasistratus, signifying all that substance which is contained in the interstices betwixt the blood-vessels of the viscera, which he imagined to be extravasated and concremented blood.

PARENCHYMA of Plants. Grew applies the term *parenchyma* to the pith or pulp, or that inner part of a fruit or plant through which the juice is supposed to be distributed. See **PLANTS**.

PARENT, a term of relation applicable to those from whom we immediately derive our being. See **MORAL Philosophy**, n° 129 and 137.

To this article belongs an inquiry into, 1. The legal duties of parents to their legitimate children. 2. Their power over them.

I. The duties of parents to legitimate children consist in three particulars; their *maintenance*, their *protection*, and their *education*.

1. The duty of parents to provide for the *maintenance* of their children, is a principal of natural law; an obligation, says Puffendorff, laid on them not only by nature herself, but by their own proper act, in bringing them into the world; for they would be in the highest manner injurious to their issue, if they only gave their children life, that they might afterwards see them perish. By begetting them, therefore, they have entered into a voluntary obligation, to endeavour, as far as in them lies, that the life which they have bestowed shall be supported and preserved. And thus the

Paregories
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Parent.

Parent. the children will have a perfect right of receiving maintenance from their parents. And the president Montesquieu has a very just observation upon this head, that the establishment of marriage, in all civilized states, is built on this natural obligation of the father to provide for his children; for that ascertains and makes known the person who is bound to fulfil this obligation; whereas, in promiscuous and illicit conjunctions, the father is unknown; and the mother finds a thousand obstacles in her way; shame, remorse, the constraint of her sex, and the rigour of laws, that stifle her inclinations to perform this duty; and besides, she generally wants ability.

The municipal laws of all well regulated states have taken care to enforce this duty: though providence has done it more effectually than any laws, by implanting in the breast of every parent that natural *sapientia*, or insuperable degree of affection, which not even the deformity of person or mind, not even the wickedness, ingratitude, and rebellion of children, can totally suppress or extinguish.

The civil law obliges the parent to provide maintenance for his child; and if he refuses, *judex de ea re cognoscet*. Nay, it carries this matter so far, that it will not suffer a parent at his death totally to disinherit his child, without expressly giving his reason for so doing; and there are 14 such reasons reckoned up, which may justify such disinherison. If the parent alleged no reason, or a bad, or a false one, the child might set the will aside, *tanquam testamentum inofficiosum*, a testament contrary to the natural duty of the parent. And it is remarkable under what colour the children were to move for relief in such a case; by suggesting, that the parent had lost the use of his reason when he made the *inofficious* testament. And this, as Puffendorff observes, was not to bring into dispute the testator's power of disinheriting his own offspring; but to examine the motives upon which he did it; and if they were found defective in reason, then to set them aside. But perhaps this is going rather too far: every man has, or ought to have, by the laws of society, a power over his own property: and, as Grotius very well distinguishes, natural right obliges to give a *necessary* maintenance to children; but what is more than that they have no right to, than as it is given by the favour of their parents, or the positive constitutions of the municipal law.

Let us next see what provision our own laws have made for this natural duty. It is a principle of law, that there is an obligation on every man to provide for those descended from his loins; and the manner in which this obligation shall be performed, is thus pointed out. The father and mother, grandfather and grandmother, of poor impotent persons, shall maintain them at their own charges, if of sufficient ability, according as the quarter-sessions shall direct; and, if a parent runs away, and leaves his children, the churchwardens and overseers of the parish shall seize his rents, goods, and chattels, and dispose of them toward their relief. By the interpretations which the courts of law have made upon these statutes, if a mother or grandmother marries again, and was before such second marriage of sufficient ability to keep the child, the husband shall be charged to maintain it; for this being a debt of her's, when single, shall, like others, extend

to charge the husband. But, at her death, the relation being dissolved, the husband is under no farther obligation.

No person is bound to provide a maintenance for his issue, unless where the children are impotent and unable to work, either through infancy, disease, or accident; and then is only obliged to find them with necessaries, the penalty on refusal being no more than 20s. a month. For the policy of our laws, which are ever watchful to promote industry, did not mean to compel a father to maintain his idle and lazy children in ease and indolence; but thought it unjust to oblige the parent, against his will, to provide them with superfluities, and other indulgences of fortune; imagining they might trust to the impulse of nature, if the children were deserving of such favours. Yet, as nothing is so apt to stifle the calls of nature as religious bigotry, it is enacted, that if any Popish parent shall refuse to allow his Protestant child a fitting maintenance, with a view to compel him to change his religion, the lord chancellor shall by order of court constrain him to do what is just and reasonable. But this did not extend to persons of another religion, of no less bitterness and bigotry than the Popish: and therefore, in the very next year, we find an instance of a Jew of immense riches, whose only daughter having embraced Christianity, he turned her out of doors; and on her application for relief, it was held she was intitled to none. But this gave occasion to another statute, which ordains, that if Jewish parents refuse to allow their Protestant children a fitting maintenance, suitable to the fortune of the parent, the lord chancellor, on complaint, may make such order therein as he shall see proper.

Our law has made no provision to prevent the disinheriting of children by will; leaving every man's property in his own disposal, upon a principle of liberty in this as well as every other action; though perhaps it had not been amiss if the parent had been bound to leave them at the least a necessary subsistence. Indeed, among persons of any rank or fortune, a competence is generally provided for younger children, and the bulk of the estate settled upon the eldest by the marriage-articles. Heirs also, and children, are favourites of our courts of justice, and cannot be disinherited by any dubious or ambiguous words; there being required the utmost certainty of the testator's intentions to take away the right of an heir.

2. From the duty of maintenance we may easily pass to that of *protection*; which is also a natural duty, but rather permitted than enjoined by any municipal laws; nature, in this respect, working so strongly as to need rather a check than a spur. A parent may, by our laws, maintain and uphold his children in their law-suits, without being guilty of the legal crime of maintaining quarrels. A parent may also justify an assault and battery in defence of the persons of his children; nay, where a man's son was beaten by another boy, and the father went near a mile to find him, and there revenged his son's quarrel by beating the other boy, of which beating he afterwards unfortunately died; it was not held to be murder, but manslaughter merely. Such indulgence does the law show to the frailty of human nature, and the workings of parental affection.

3. The last duty of parents to their children is that

Parent.

of giving them an *education* suitable to their station in life: a duty pointed out by reason, and of far the greatest importance of any. For, as Puffendorff very well observes, it is not easy to imagine or allow, that a parent has conferred any considerable benefit upon his child by bringing him into the world, if he afterwards entirely neglects his culture and education, and suffers him to grow up like a mere beast, to lead a life useless to others, and shameful to himself. Yet the municipal laws of most countries seem to be defective in this point, by not constraining the parent to bestow a proper education upon his children. Perhaps they thought it punishment enough to leave the parent who neglects the instruction of his family, to labour under those griefs and inconveniences which his family, so uninstructed, will be sure to bring upon him. Our laws, though their defects in this particular cannot be denied, have in one instance made a wise provision for breeding up the rising generation; since the poor and laborious part of the community, when past the age of nurture, are taken out of the hands of their parents, by the statutes for apprenticing poor children; and are placed out by the public in such a manner as may render their abilities, in their several stations, of the greatest advantage to the commonwealth. The rich indeed are left at their own option, whether they will breed up their children to be ornaments or disgraces to their family. Yet in one case, that of religion, they are under peculiar restrictions: for it is provided, that if any person sends any child under his government beyond the seas, either to prevent its good education in England, or in order to enter into, or reside in, any Popish college, or to be instructed, persuaded, or strengthened in the Popish religion; in such case, besides the disabilities incurred by the child so sent, the parent or person sending shall forfeit 100*l.* which shall go to the sole use and benefit of him that shall discover the offence. And if any parent, or other, shall send or convey any person beyond sea, to enter into, or be resident in, or trained up in, any priory, abbey, nunnery, Popish university, college, or school, or house of Jesuits or priests, or in any private Popish family, in order to be instructed, persuaded, or confirmed, in the Popish religion; or shall contribute any thing towards their maintenance when abroad by any pretext whatever, the person both sending and sent shall be disabled to sue in law or equity, or to be executor or administrator to any person, or to enjoy any legacy or deed of gift, or to bear any office in the realm, and shall forfeit all his goods and chattels, and likewise all his real estate for life. See NONCONFORMISTS.

II. The power of parents over their children is derived from the former consideration, their *duty*; this authority being given them, partly to enable the parent more effectually to perform his duty, and partly as a recompence for his care and trouble in the faithful discharge of it. And upon this score the municipal laws of some nations have given a much larger authority to the parents than others. The ancient Roman laws gave the father a power of life and death over his children; upon this principle, that he who gave had also the power of taking away. But the rigour of these laws was softened by subsequent constitutions: so that we find a father banished by the emperor Hadrian for killing his son, though he had com-

mitted a very heinous crime; upon this maxim, that *patris potestas in pietate debet, non in atrocitate, consistere*. But still they maintained to the last a very large and absolute authority: for a son could not acquire any property of his own during the life of his father; but all his acquisitions belonged to the father, or at least the profits of them, for his life.

The power of a parent by the English law is much more moderate; but still sufficient to keep the child in order and obedience. He may lawfully correct his child, being under age, in a reasonable manner: for this is for the benefit of his education. The consent or concurrence of the parent to the marriage of his child under age, was also directed by our ancient law to be obtained: but now it is absolutely necessary; for without it the contract is void. And this also is another means which the law has put into the parent's hands, in order the better to discharge his duty; first, of protecting his children from the snares of artful and designing persons; and next, of settling them properly in life, by preventing the ill consequences of too early and precipitate marriages. A father has no other power over his son's estate, than as his trustee or guardian; for though he may receive the profits during the child's minority, yet he must account for them when he comes of age. He may indeed have the benefit of his children's labour while they live with him, and are maintained by him; but this is no more than he is intitled to from his apprentices or servants. The legal power of a father (for a mother, as such, is intitled to no power, but only to reverence and respect), the power of a father, we say, over the persons of his children ceases at the age of 21; for they are then enfranchised by arriving at years of discretion, or that point which the law has established (as some must necessarily be established) when the empire of the father, or other guardian, gives place to the empire of reason. Yet, till that age arrives, this empire of the father continues even after his death; for he may by his will appoint a guardian to his children. He may also delegate part of his parental authority, during his life, to the tutor or schoolmaster of his child; who is then *in loco parentis*, and has such a portion of the power of the parent committed to his charge, *viz.* that of restraint and correction, as may be necessary to answer the purposes for which he is employed.

In the Gentleman's Magazine for 1750, we have the following case of conscience. "A person has his own parents and his own children living, both parties equally indigent, both equally incapable of assisting themselves, and both equally earnest in calling upon him for relief. Things are so circumstanced that he can possibly assist but one party, and not both. *Query.* Which party has the greatest claim to his assistance, and to which is he obliged, by all ties human and divine, to give the preference?" One solves this difficulty, by informing us of a pretty print done at Rome, representing a young woman suckling her aged father, on which the following lines are quoted.

My child and father vital nurture crave,
Parental, filial, fondness both would save;
But if a nursing only one can live,
I choose to save the life I cannot give.

Here we find the preference given to the parent;
and

Parent.

Parent.

and another correspondent gives the same decision in these words. "The obligations arising from nature, and natural affection, seem to be in this case reciprocal and equipollent: the child is as strongly attracted to the parent, as the parent to the child. But will not filial gratitude operate and decide in favour of the parents? Does not the person, either mediately or immediately, owe his present power and abilities to relieve, to his parents? and are not they on that account best intitled to relief? Does not the fifth commandment declare more strongly in favour of the parents, than any other divine precept does in favour of the children? If a person had an opportunity given him of delivering either his parent or his child (but not both) from certain death, I dare say the voice of nature and of mankind would applaud him that saved his parent, and condemn him that should prefer his child. There is more of selfishness in preferring the child; and to save the parent seems to me to be much the more generous, noble, and exalted conduct. 'Tis indeed, upon the whole, a melancholy alternative; but if both parties continue importunate, and neither will relinquish their claims in favour of the other, I say relieve the parent." There are two correspondents, however, who think differently, and their reasons are as follow: "A person's children have the greatest claim to his assistance, and he is obliged by all ties to prefer them, in that respect, to his parents. It is true, when a man's parents are in want, they have a claim to his assistance; but that claim is not equal to that which his children have. His parents he has of necessity: his children, of choice. It is his duty, before he beget children, to consider how he is to provide for them: and by being wilfully the cause of their existence, he comes under such an obligation to provide for their comfortable subsistence, as must be stronger than any obligation of that kind he can be under to persons with whom his connection is involuntary. Both nature and reason point it out as the duty of all parents to provide for their children; but not *vice versa*. If a man's parents happen to be indigent, and he himself able, he is bound to maintain them out of respect and gratitude: but his obligation to provide for his children is a debt of strict justice; and therefore ought to be preferred. Nevertheless, the description of the case to which the query is subjoined, is so general, that it is easy to figure a case according to that description in which the person ought to prefer his parents. This obligation to provide for his children may have been dissolved by monstrous ingratitude, such as their plotting against his life; or he may have given them proper education, and ample provisions, which they have riotously squandered away: in either of which cases it is thought he is undoubtedly discharged from his obligation. But if they have lost their portions purely by misfortunes, without their fault, it is thought his obligation to assist them is not wholly extinguished; and in that case there may be great reason to doubt whether their claim to his assistance, or that of his parents, is preferable: it is thought, however, the children's is preferable." "I find (says the author of the last answer) that all your correspondents agree, that the life of the parent is to be preserved. It is very certain, that the relation between me and my child is exactly equal to that which is between me and my parent; and therefore relation

cannot decide in favour of the one or the other: I must then be determined by a different consideration; and I know of none more weighty than the following. If I preserve the life of my child, I am instrumental in giving life to all his descendants, which may, perhaps, be very numerous; but if I preserve the life of my parent, I preserve a single life only, and that a short one. I therefore say, *relieve the child*. But it is thought that the voice of nature will applaud the person who preserves the parent: if so, nature must applaud a rule which she herself does not observe: it is natural for old men to die before young ones. Besides, the command, *Be fruitful and multiply, and replenish the earth*, may be opposed to the fifth commandment." Still, however, it is doubtless difficult to determine in such cases when they occur, as there are no fixed rules whereby to decide. With respect to the power of parents and the duty of children, much may be said. There is, however, scarcely any instance where either are oftener abused than with respect to marriage. This, as it is the most important event in the civil life either of a man or woman, so it is often rendered peculiarly unfortunate, by precipitate folly and want of duty in children; and as often through the unreasonable severity of parents. As a child is bound not to give unreasonable offence to a parent in the choice of a partner; so neither ought the parent to impose any improper or arbitrary restraint upon the child.

The power of a parent in China is very great; for a father, while living, has the power of an absolute despotic tyrant, and after his death is worshipped as a god. Let a son become ever so rich, and a father ever so poor, there is no submission, no point of obedience, that the latter cannot command, or that the former can refuse. The father is absolute master, not only of his son's estate, but also of his concubines and children, who, whenever they displease him, he may sell to strangers. If a father accuses his son before a mandarin, there needs no proof of his guilt; for they cannot believe that any father can be so unnatural as to bring a false accusation against his own son. But should a son be so insolent as to mock his father, or arrive at such a pitch of wickedness as to strike him, all the province where this shameful act of violence is committed is alarmed; it even becomes the concern of the whole empire; the emperor himself judges the criminal. All the mandarines near the place are turned out of their posts, especially those of the town where he lived, for having been so negligent in their instructions; and all the neighbours are reprimanded for neglecting, by former punishments, to put a stop to the wickedness of the criminal before it arrived to such flagitiousness. As to the unhappy wretch himself, they cut him into a thousand pieces, burn his bones, level his house to the ground, and even those houses that stand near it, and set up monuments and memorials of the horrid deed.

The emperor of China, who is one of the most powerful and despotic monarchs upon earth, pays the greatest attention to his mother. An instance of this Pere Amyot relates as having happened at Peking, A. D. 1752, when the emperor's mother entered her 60th year, which, among the Chinese, is accounted a very remarkable period. Grosier likewise particularly describes the homage the emperor pays his mother

Parent.

*Payne's
Geography.*

Parent.

mother every new-year's day in the palace, at which ceremony all the great officers of his court assist. See CHILDREN, *FILIAL Piety*, *PARENTAL Affection*, &c.

PARENT (Unsoine), a mathematician, was born at Paris in 1666. He showed an early propensity to mathematics. He accustomed himself to write remarks upon the margins of the books which he read; and he had filled a variety of books with a kind of commentary at the early age of thirteen. At fourteen he was put under a master, who taught rhetoric at Chartres. It was here that he happened to see a dodecoëdron, upon every face of which was delineated a sun-dial, except the lowest, whereon it stood. Struck as it were instantaneously with the curiosity of these dials, he attempted drawing one himself: but having a book which only showed the practical part without the theory, it was not till after his rhetoric master came to explain the doctrine of the sphere to him that he began to understand how the projection of the circles of the sphere formed sun-dials. He then undertook to write a Treatise upon Gnomonics. The piece was indeed rude and unpolished; but it was entirely his own, and not borrowed. About the same time he wrote a book of Geometry, in the same taste, at Beauvois. His friends then sent for him to Paris to study the law; and, in obedience to them, he studied a course in that faculty: which was no sooner finished than, urged by his passion for mathematics, he shut himself up in the college of Dormans, that no avocation might take him from his beloved study: and, with an allowance of less than 200 livres a-year, he lived content in this retreat, from which he never stirred but to the Royal College, in order to hear the lectures of M. de la Hire or M. de Sauveur. When he found himself capable of teaching others, he took pupils: and fortification being a branch of mathematics which the war had brought into particular notice, he turned his attention to it; but after some time began to entertain scruples about teaching what he had never seen, and knew only by the force of imagination. He imparted this scruple to M. Sauveur, who recommended him to the Marquis d'Aligre, who luckily at that time wanted to have a mathematician with him. Parent made two campaigns with the marquis, by which he instructed himself sufficiently in viewing fortified places; of which he drew a number of plans, though he had never learned the art of drawing. From this period he spent his time in a continual application to the study of natural philosophy, and mathematics in all its branches, both speculative and practical; to which he joined anatomy, botany, and chemistry. His genius managed every thing, and yet he was incessant and indefatigable in his application. M. de Billettes, who was admitted in the academy of sciences at Paris in 1699, with the title of their mechanician, nominated for his disciple Parent, who excelled chiefly in this branch. It was soon discovered in this society, that he engaged in all the various subjects which were brought before them; and indeed that he had a hand in every thing. But this extent of knowledge, joined to a natural impetuosity of temper, raised in him a spirit of contradiction, which he indulged on all occasions; sometimes to a degree of precipitancy highly culpable, and often with but little regard to decency. Indeed the same behaviour was shown to

him, and the papers which he brought to the academy were often treated with much severity. He was charged with obscurity in his productions; and he was indeed so notorious for this fault, that he perceived it himself, and could not avoid correcting it. The king had, by a regulation in 1716, suppressed the class of scholars of the academy, which seemed to put too great an inequality betwixt the members. Parent was made a joint or assistant member for geometry: but he enjoyed this promotion but a short time; for he was taken off by the small-pox the same year, at the age of 50. He was author of a great many pieces, chiefly on mechanics and geometry.

PARENTAL, something belonging to the relation of parent. See PARENT.

PARENTAL Affection, the endearing attachment of parents to their children, including in it love; a desire of doing good to those who by an act of our own depend upon us for all that they enjoy. Nature even excites this affection in brutes; but in them it continues only so long as it is necessary for the preservation of their offspring; for when these are able to provide for themselves, it ceases, and the relation is forgotten. In man, however, though it lessens, or at least becomes less anxious as the dependence of the child becomes less, it never entirely ceases, except in some few instances of extreme depravity. Authors, however, have imagined, and Lord Kames* among the rest, that after the child is provided for, and no more depends on the parent, all affection would cease, were it not artificially preserved and confirmed by habit. Whether his lordship, in this opinion, be right or wrong, we shall not pretend to say. One thing, however, is certain, that be it natural or not, it is one of the greatest comforts of life, even when all dependence has ceased. It matters not that there are many instances where this comfort is not felt. Human depravity has often obliterated the finest feelings of the mind; and it is not to be wondered at if in some instances it do so in the case before us. A good heart certainly can enjoy no greater satisfaction than that arising from grateful returns of kindness and affection to an aged parent. As the vexations which parents receive from their children hasten the approach of age, and double the force of years; so the comforts which they reap from them are balm to all other sorrows, and disappoint the injuries of time. Parents repeat their lives in their offsprings; and their concern for them is so near, that they feel all their sufferings, and taste all their enjoyments, as much as if they regarded their own persons. However strong we may suppose the fondness of a father for his children, yet they will find more lively marks of tenderness in the bosom of a mother. There are no ties in nature to compare with those which unite an affectionate mother to her children, when they repay her tenderness with obedience and love.

We have a remarkable instance of parental affection in Zaleucus † prince of the Locrines; who made a decree, that whoever was convicted of adultery should be punished with the loss of both his eyes. Soon after this establishment, the legislator's own son was apprehended in the very fact, and brought to a public trial. How could the father acquit himself in so tender and delicate a conjuncture? Should he execute the law in all its rigour, this would be worse than death

Parental.

* Sketches of the Hist. of Man.

† Ælian. lib. 13.

Parental
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Paretone-
uni.

death to the unhappy youth: should he pardon so notorious a delinquent, this would defeat the design of his salutary institution. To avoid both these inconveniences, he ordered one of his own eyes to be pulled out and one of his son's.

Diodorus Siculus also, lib. 34. gives us a surprising instance of the same warm affection. Cambalus, a young gentleman of character and fortune in the city of Mulgeatum, being one day out a courting, was way-laid, and very near being robbed and murdered by the banditti who infested that part of the country. Gorgus, the young gentleman's father, happened to come by at the very instant, to whom Cambalus related the danger he was in. The son was on foot, the father on horseback; but no sooner had he heard the melancholy tale, than he leapt from his horse, desired his son to mount, and make the best of his way into the city: but Cambalus, preferring his father's safety to his own, would by no means consent to it; on the contrary, conjured his father to leave him, and take care of himself. The father, struck with the generosity and affection of his son, added tears to entreaties, but all to no purpose. The contest between them is better conceived than described—while bathed in tears, and beseeching each other to preserve his own life, the banditti approached and stabbed them both.

Amongst the ancients Greeks, the sentiments of parental affection were exceedingly strong and ardent. The mutual tenderness of the husband and the wife was communicated to their offspring; while the father viewed in his child the charms of its mother, and the mother perceived in it the manly graces of its father. As paternal kindness is the most simple and natural expansion of self-love, so there are innumerable instances of it in all countries savage and civilized.

PARENTALIA, in antiquity, funeral obsequies, or the last duties paid by children to their deceased parents.

PARENTHESIS, in grammar, certain intercalary words inserted in a discourse, which interrupt the sense or thread, but seem necessary for the better understanding of the subject.

PARENZO, a small but strong town of Italy, and in Istria, with a bishop's see and a good harbour; seated on the gulf of Venice, in E. Long. 13. 46. N. Lat. 39. 28. It submitted to the Venetians in 1267.

PAREISIS, in medicine, a palsy of the bladder, wherein the urine is either suppressed or discharged involuntarily.

PARETONEUM, in natural history, the name of an earth found on the shores of Egypt, Cyrene, and the island of Crete; used by the ancients in painting.

It had its name either from a part of Egypt, near which it was gathered, or from the name of a town in that kingdom, where it was usually sold. Vitruvius is of the first opinion, and Volaterrus of the other. Of late it was thought to be lost; but it is still common on the shores of most of the islands of the Archipelago, though not observed or regarded; and is truly a very heavy and tough clay of a fine white colour, found in masses of different sizes, generally as soft as the softer clays within the strata; and, by rolling about on the beach in this state, it gathers up the sand, small

shells, and other foulnesses, we always find about it. It is likely that there are strata of it fine and pure in the cliffs there, and that the sea washes off masses of them in storms and high tides, which are what we find.

PARGET, in natural history, a name given to several kinds of gypsum, or plaster-stone.

PARGETING, in building, is used for the plastering of walls, and sometimes for plaster itself.

Targeting is of various kinds: as, 1. White-lime and hair-mortar laid on bare walls. 2. On bare laths, as in partitioning and plain cieling. 3. Rendering the insides of walls, or doubling partition walls. 4. Rough-casting on heart laths. 5. Plastering on brick-work, with finishing mortar, in imitation of stone-work; and the like upon heart-laths.

PARHELION, or PARHELIUM, formed from *παρὰ* near, and *ἥλιος* sun, in natural philosophy, a mock-sun or meteor, in form of a very bright light, appearing on one side of the sun.

Appearances of this kind have been made mention of both by the ancients and moderns. Aristotle observes, that in general they are seen only when the sun is near the horizon, though he takes notice of two that were seen in Bosphorus from morning to evening; and Pliny has related the times when such phenomena were observed at Rome. Gassendi says, that in 1635 and 1636 he often saw one mock-sun. Two were observed by M. de la Hire in 1689; and the same number by Cassini in 1693, Mr Grey in 1700, and Dr Halley in 1702: but the most celebrated appearances of this kind were seen at Rome by Scheiner, by Muschenbroeck at Utrecht, and by Hevelius at Sedan. By the two former, four mock-suns were observed, and by the latter seven.

Parhelia are apparently of the same size with the sun, though not always of the same brightness, nor even of the same shape; and when a number appear at once, there is some difference in both these respects among them. Externally they are tinged with colours like the rainbow; and many have a long fiery tail opposite to the sun, but paler towards the extremity. Parhelia are generally accompanied with coronas, some of which are tinged with rainbow colours, but others are white. They differ in number and size; but all agree in breadth, which is that of the apparent diameter of the sun.

A very large white circle, parallel to the horizon, generally passes through all the parhelia; and, if it were entire, it would go through the centre of the sun. Sometimes there are arcs of lesser circles concentric to this, touching those coloured circles which surround the sun. They are also tinged with colours, and contain other parhelia. There are also said to have been other circles obliquely situated with respect to all those we have mentioned; but of this we have met with no authentic account. The order of the colours in these circles is the same as in the rainbow; but on the inside, with respect to the sun, they are red, as is also observed in many other coronas.

Parhelia have been visible for 1, 2, 3, and 4 hours together; and in North America they are said to continue some days, and to be visible from sunrise to sunset.

When the parhelia disappear, it sometimes rains, or there

Parget
||
Parhelion.

Parhelion. there falls snow in the form of oblong spiculæ, as Maraldi, Weidler, Krafft, and others, have observed; and because the air in North America abounds with such frozen spiculæ, which are even visible to the eye, according to Ellis and Middleton, such particles have been thought to be the cause of all coronas and parhelia.

Mr Wales says, that, at Churchill in Hudson's Bay, the rising of the sun is always preceded by two long streams of red light, one on each side of him, and about 20° distant from him. These rise as the sun rises; and as they grow longer begin to bend towards each other, till they meet directly over the sun, just as he rises, forming there a kind of parhelion or mock-sun. These two streams of light, he says, seem to have their source in two other parhelia, which rise with the true sun; and in the winter-season, when the sun never rises above the haze or fog, which he says is constantly found near the horizon, all these accompany him the whole day, and set with him in the same manner as they rise. Once or twice he saw a fourth parhelion directly under the true sun; but this, he says, is not common. These facts being constant, are very valuable, and may throw great light on the theory of these remarkable phenomena.

Sometimes parhelia appear in a different manner; as when three suns have been seen in the same vertical circle, well defined, and touching one another. The true sun was in the middle, and the lowest touched the horizon; and they set one after the other. This appearance was seen by M. Maleziew in 1722. Other appearances similar to this are recited by M. Muschenbroeck.

Sometimes the sun has risen or set with a luminous tail projecting from him, of the same breadth with his diameter, and perpendicular to the horizon. Such an appearance was seen by Cassini in 1672 and 1692, by De la Hire in 1702, and by Mr Ellis in Hudson's Bay.

As M. Feuilée was walking on the banks of the river La Plata, he saw the sun rising over the river with a luminous tail projecting downwards, which continued till he was six degrees high.

Paraselenæ, or mock-moons, have also been seen, accompanied with tails and coloured circles, like those which accompany the parhelia. An account of several, and a particular description of a fine appearance of this kind, may be seen in Muschenbroeck.

The Roman phenomenon, observed by Scheiner, is famous on account of its having been the first appearance of the kind that engaged the attention of philosophers. It is represented in fig. 1.; in which A is the place of the observer, B his zenith, C the true sun, AB a plane passing through the observer's eye, the true sun, and the zenith. About the sun C, there appeared two concentric rings, not complete, but diversified with colours. The lesser of them, DEF, was fuller, and more perfect; and though it was open from D to F, yet those ends were perpetually endeavouring to unite; and sometimes they did so. The outer of these rings was much fainter, so as scarcely to be discernible. It had, however, a variety of colours; but was very inconstant. The third circle, KLMN, was very large, and all over white, passing through the middle of the sun, and everywhere parallel to the ho-

N^o 259.

zizon. At first this circle was entire; but towards the end of the appearance it was weak and ragged, so as hardly to be perceived from M towards N.

In the intersection of this circle, and the outward iris GKI, there broke out two parhelia or mock-suns, N and K, not quite perfect; K being rather weak, but N shone brighter and stronger. The brightness of the middle of them was something like that of the sun; but towards the edges they were tinged with colours like those of the rainbow; and they were uneven and ragged. The parhelion N was a little wavering, and sent out a spiked tail, NP, of a colour somewhat fiery, the length of which was continually changing.

The parhelia at L and M in the horizontal ring were not so bright as the former; but were rounder, and white, like the circle in which they were placed. The parhelion N disappeared before K; and while M grew fainter, K grew brighter, and vanished the last of all.

It is to be observed farther, that the order of the colours in the circles DEF, GKN, was the same as in the common halos, namely, red next the sun; and the diameter of the inner circle was also about 45° degrees; which is the usual size of a halo.

The reverend Dr Hamilton sent the following account of parhelia seen at Cookstown to the Royal Irish Academy.

"Wednesday September 24th, 1783, as I was preparing to observe the sun passing the meridian, before the first limb touched the centre wire, it was obscured by a dark well defined cloud, about 10° in diameter. Upon going to the door of the transit room, to see if it was likely soon to pass off the disk of the sun, I observed the following phenomena: From the western edge of the cloud issued a luminous arc parallel to the horizon, perfectly well defined, extending exactly to the northern meridian; it was about $30'$ broad, white, and ended in a blunted termination. On it were two parhelia; the nearest to the sun displaying the prismatic colours; the remote one white, and both ill defined. In a short time the cloud had passed off, and showed the luminous almicantar, reaching perfect to the true sun. While things were thus situated, I measured with an accurate sextant the distances of the parhelia; I found the coloured one 26° , the remoter one 90° , from the true sun. Just as I had done this, a new and prismatic circle surrounded the sun, immediately within the prismatic parhelion. And now another coloured parhelion appeared on the eastern board. The sextant with its face up and down, exactly measured this and the former at the original distance of 26° ; the luminous almicantar still remaining perfect. In about 10 or 12 minutes whitish hazy clouds came on, and obscured all these uncommon appearances. — I did not observe that the atmospherical phenomena before or after were at all uncommon. The wind a light breeze at SSW. Bar. 29.6 rising. Thermometer 55.

In fig. 2. SM represents the south meridian; NM north meridian; PP the prismatic circle, with two prismatic suns or parhelia, at 26° distance on each side the true sun; W the white parhelion, at 90° distance from the true sun; LA the luminous almicantar; and HO the horizon.

Various

Paria
||
Parias.

Various hypotheses have been framed by philosophers to account for this phenomenon, particularly by M. Marriotte, Descartes, and Huygens. None of them, however, are satisfactory: but those readers who wish to become acquainted with them may consult Huygens's Dissertation on this subject, in Smith's Optics, book i. ch. 11. Muschenbroeck's Introduction, &c. vol. xi. p. 1038, &c. 4to.; but especially Dr Priestley's History of Vision, Light, and Colours, vol. ii. p. 613, &c.

PARIA, or New ANDALUSIA, a country of Terra Firma in South America; bounded on the north by the north sea; on the east by Surinam; on the west by New Granada and the Caraccas; and on the south by Guiana. It produces colouring drugs, gums, medicinal roots, Brazil-wood, sugar, tobacco, and some valuable timber; the inland parts being woody and mountainous, but interspersed with fine valleys that yield corn and pasturage. Comana is the capital town.

PARIAN-CHRONICLE. See ARUNDELIAN-Marbles, and Parian-CHRONICLE.

Under the article *Parian-CHRONICLE*, we have been as full as the subject seemed to require, or as the nature of our work would admit. It is unnecessary, therefore, to resume it in this place. Such of our readers, however, as wish for further information on this subject (which is equally interesting to the scholar and to the antiquarian) we must refer to Robertson's attack upon their authenticity, and to Gough's learned and judicious vindication of the authenticity, published in *Archæologia* for 1789. The extent of his learning, and the solidity of his arguments, appear upon the whole to outweigh the objections of his sensible and plausible opponent. Hewlett's book upon the same side of the question may command some degree of attention. It is ingenious. See SANDWICH-Marble.

PARIAN-Marble, in the natural history of the ancients, the white marble used then, and to this day, for carving statues, &c. and called by us at this time *statuary marble*.

Too many of the later writers have confounded all the white marbles under the name of the *Parian*; and among the workmen, this and all the other white marbles have the common name of *alabasters*; so that it is in general forgotten among them, that there is such a thing as alabaster different from marble; which, however, is truly the case. Almost all the world also have confounded the Carrara marble with this, though they are really very different; the Carrara kind being of a finer structure and clearer white than the Parian; but less bright and splendid, harder to cut, and not capable of so glittering a polish.

The true Parian marble has usually somewhat of a faint bluish tinge among the white, and often has blue veins in different parts of it. It is supposed by some to have had its name from the island Paros*, one of the Cyclades in the Ægean Sea, where it was first found; but others will have it to have been so called from Agoracritus Parius, a famous statuary, who ennobled it by cutting a statue of Venus in it.

PARIAS, or PERREAS, a tribe of Hindoos, so peculiarly distinguished from all others, that they live by themselves in the out-skirts of towns; and, in the country, build their houses apart from the villages, or

rather have villages of their own, furnished with wells; for they dare not so much as fetch water from those which other families make use of; and, lest these latter should inadvertently go to one of theirs, they are obliged to scatter the bones of dead cattle about their wells, that they may be known. They dare not in cities pass through the streets where the Bramins live; nor set foot in the villages where they dwell.— They are likewise forbidden to enter a temple, either of their god Wistnow or Eswara; because they are held impure. They get their bread by sowing, digging, and building the walls of mud houses; most of those inhabited by the common people being raised by these Parias; who also do such kinds of dirty work as other people do not care to meddle with. Nor is their diet much more cleanly; for they do not scruple to eat cows, horses, fowl, or other carrion, which die of themselves, and even stink. One would scarce imagine, that contentions for precedence should ever enter into the thoughts of a people who have renounced all cleanliness, and, like swine, wallow in filth; and yet pride has divided the Parias into two classes: the first are simply called *Parias*, the other *Seriperes*. The employment of these latter is to go about selling leather, which they dress; also to make bridles, and such kind of things: some of them likewise serve for soldiers. The Parias, who reckon themselves the better family, will not eat in the house of the Seriperes; but the Seriperes will readily eat with the Parias. For this reason they are obliged to pay them respect, by lifting their hands aloft, and standing upright before them. These Seriperes, when they marry, cannot set up a pandal, a kind of garland, before their doors, made with more than three stakes or trees; should they exceed that number, the whole city would be in motion. The Seriperes are likewise subject to some sort of slavery; for when any person of credit or authority dies in the families of the Komitis, Sittis, Palis, farriers, or goldsmiths, and the friends have a mind to be at the expence of some clothes to give the Seriperes, these latter must suffer their beards to be shaven; and when the corpse is carried out of town to be burned or interred, they must do that office; for which each receives a *fanum*, or one piece and a half of silver, worth three sous and a half. These are the same sort of people who are called at Surat *Halalchers*; that is, in the Persian language, "eat-alls, or eaters at large." Nothing can offend an Hindoo more than to be called an Halalchor: yet these poor people are not offended, cringe and bow to all they pass, and go through their drudgery without noise or concern.

The Parias are very vicious, stupid, and ignorant, occasioned by their wretched way of life: The Bramins and nobility shun them as if they had the plague, and look on the meeting a Parias as the greatest misfortune. To come near one of them is a sin, to touch them a sacrilege. If a Parias were dying, it is infamy to visit him, or to give him the least assistance, in the utmost danger or distress. A Bramin who unavoidably should touch a Parias, immediately washes himself from the impurity. Even their shadow and breath being reckoned contagious, they are obliged to live on the east side of their towns, that the westerly winds which reign in this country may keep back their breath. And it is lawful for a Bramin to kill one

Parias.
Med. Univ.
Hist. v. 5.

* See Paros.

Parietalia
||
Paris.

of these unhappy creatures, if he does not avoid it by getting out of his way: In short, they think them reprobated by God, and believe the souls of the damned enter into the Parias, to be punished for their crimes.— Yet the mission have found among these dregs of the people very active zealous catechists, who by their labours have very much contributed to the conversion of their countrymen, particularly one Rajanaiken a Paria soldier, who, of all the inferior missionaries, has distinguished himself most by his labours and sufferings.

PARIETALIA ossa, in anatomy. See there n^o 13.

PARIETARIA, *PELLITORY of the WALL*: A genus of the monœcia order, belonging to the polygamia class of plants; and in the natural method ranking under the 53d order, *Scabridæ*. The calyx of the hermaphrodite is quadrifid; there is no corolla; there are four stamina; one style; and one seed, superior and elongated. The female calyx is quadrifid; there is no corolla; nor are there any stamina. There is one style; and one seed superior, and elongated. There are six species, of which one named the *officinalis* is used in medicine. This has a creeping root. The stalk grows erect, is rough to the touch, and adhesive. The leaves are alternate, elliptical, lanceolate, veined, and a little rough. The flowers grow out of the axæ of the leaves, in sessile, branched, verticillate clusters, of a greenish colour tinged with red. The antheræ have a great degree of sensibility; for, if irritated with the point of a pin, they fly from the calyx with elastic force, and throw out their powder. The plant has a cooling and diuretic quality. Three ounces of the juice taken internally, or a fomentation externally applied, have been found serviceable in the strangury. The plant laid upon heaps of corn infested with weevils, is said to drive away those destructive insects.

PARIETES, in anatomy, a term used for the inclosures or membranes that stop up or close the hollow parts of the body; especially those of the heart, the thorax, &c. The parietes of the two ventricles of the heart are of unequal strength and thickness; the left exceeding the right, because of its office, which is to force the blood through all parts of the body; whereas the right only drives it through the lungs.

PARIS (Matthew), one of our best historians from William the Conqueror to the latter end of the reign of Henry III. but of his life few particulars have been transmitted to us. Leland, his original biographer, without determining whether he was born in France or England, informs us, that he was a monk of St Alban's, and that he was sent by Pope Innocent to reform the monks of the convent at Holm in Norway. Bishop Bale, the next in point of time, adds to the above relation, that, on account of his extraordinary gifts of body and mind, he was much esteemed, particularly by king Henry III. who commanded him to write the history of his reign. Fuller makes him a native of Cambridgeshire, because there was an ancient family of his name in that county. He also mentions his being sent by the pope to visit the monks in the diocese of Norwich. Bishop Tanner, Bishop Nicholson, Doctor Du Pin, and the *Nouveau Dictionnaire Historique*, add not a single fact to those above related. Matthew Paris died in the

monastery of St Alban's in the year 1259. He was doubtless a man of extraordinary knowledge for the 13th century; of an excellent moral character, and, as an historian, of strict integrity. His style is unpolished; but that defect is sufficiently atoned for by the honest freedom with which he relates the truth, regardless of the dignity or sanctity of the persons concerned. His works are, 1. *Historia ab Adamo ad Conquestum Angliæ*, lib. i. manuscript. col. C. C. Cantab. c. ix. Most of this book is transcribed, by Matthew of Westminster, into the first part of his *Florilegium*. 2. *Historia major, seu rerum Anglicanarum historia à Gul. Conquestoris adventu ad annum 43 Henrici III.* &c. several times printed. The first part of this history, viz. to the year 1235, is transcribed almost verbatim from the Chronicle of Roger Wendover; and the Appendix, from the year 1260, is the work of William Rashington, who was also a monk of St Alban's. 3. *Vitæ duorum Offarum, Mercie regum, S. Albani fundatorum*. 4. *Gesta 22 abbatum S. Albani*. 5. *Additamenta chronicorum ad hist. majorem*; printed. 6. *Historia minor, sive epitome majoris historie*; manuscript. Besides many other things in manuscript.

PARIS, son of Priam, king of Troy, by Hecuba, also named *Alexander*. He was decreed, even before his birth, to become the ruin of his country; and when his mother, in the first months of her pregnancy, had dreamed that she should bring forth a torch which would set fire to her palace, the soothsayers foretold the calamities which were to be expected from the imprudence of her future son, and which would end in the ruin of Troy. Priam, to prevent so great and so alarming an evil, ordered his slave Archelaus to destroy the child as soon as he was born. The slave, either touched with humanity, or influenced by Hecuba, did not obey, but was satisfied to expose the child on mount Ida, where the shepherds of the place found him, and educated him as their own. Some attribute the preservation of his life, before he was found by the shepherds, to the motherly tenderness of a she-bear who suckled him. Young Paris, though educated among shepherds and peasants, gave very early proofs of courage and intrepidity; and from his care in protecting the flocks of mount Ida from the rapacity of the wild beasts, he was named *Alexander*, "helper or defender." He gained the esteem of all the shepherds, and his graceful countenance and manly deportment recommended him to the favours of Ceneone, a nymph of Ida, whom he married, and with whom he lived with the most perfect tenderness. Their conjugal peace was, however, of no long duration. At the marriage of Peleus and Thetis, the goddess of discord, who had not been invited to partake of the entertainment, showed her displeasure, by throwing into the assembly of the gods who were at the celebration of the nuptials, a golden apple, on which were written the words *Detur pulchriori*. All the goddesses claimed it as their own; the contention at first became general; but at last only three, Juno, Venus, and Minerva, wished to dispute their respective right to beauty. The gods, unwilling to become arbiters in an affair so tender and so delicate in its nature, appointed Paris to adjudge the prize of beauty to the fairest of the goddesses; and indeed the shepherd seemed sufficiently qualified

Paris.

qualified to decide so great a contest, as his wisdom was so well established, and his prudence and sagacity so well known. The goddesses appeared before their judge without any covering or ornament, and each endeavoured by promises and entreaties to gain the attention of Paris, and to influence his judgment. Juno promised him a kingdom; Minerva military glory; and Venus the fairest woman in the world for his wife, as Ovid expresses it, *Heroid* 17. v. 118.

*Unaque cum regnum; belli daret altera laudem;
Tyndaridis conjux, tertia dixit, eris.*

After he had heard their several claims and promises, Paris adjudged the prize to Venus, and gave her the golden apple, to which perhaps she seemed intitled as the goddess of beauty. This decision of Paris drew upon the judge and his family the resentment of the two other goddesses. Soon after, Priam proposed a contest among his sons and other princes, and promised to reward the conqueror with one of the finest bulls of mount Ida. His emissaries were sent to procure the animal, and it was found in the possession of Paris, who reluctantly yielded it. The shepherd was anxious to regain his favourite, and he went to Troy and entered the lists of the combatants. He was received with the greatest applause, and obtained the victory over his rivals, Nestor the son of Neleus, Cyrenus son of Neptune, Polites, Helenus, and Deiphobus, sons of Priam. He likewise obtained a superiority over Hector himself; which prince, enraged to see himself conquered by an unknown stranger, pursued him closely; and Paris must have fallen a victim to his brother's rage, had he not fled to the altar of Jupiter. This sacred retreat preserved his life; and Cassandra the daughter of Priam, struck with the similarity of the features of Paris with those of her brothers, inquired his birth and his age. From these circumstances she soon discovered that he was her brother, and as such she introduced him to her father and to her brothers. Priam acknowledged Paris as his son, forgetful of the alarming dreams which had caused him to meditate his death, and all jealousy ceased among the brothers. Paris did not long suffer himself to remain inactive; he equipped a fleet, as if willing to redeem Hecione his father's sister, whom Hercules had carried away and obliged to marry Telamon the son of Æacus. This was the pretended motive of his voyage, but the causes were far different. Paris remembered that he was to be the husband of the fairest of women; and, if he had been led to form those expectations while he was an obscure shepherd of Ida, he had now every plausible reason to see them realized, since he was the acknowledged son of the king of Troy. Helen was the fairest woman of the age, and Venus had promised her to him. On these grounds, therefore, he went to Sparta, the residence of Helen, who had married Menelaus. He was received with great respect; but he abused the hospitality of Menelaus, and while the husband was absent in Crete, Paris persuaded Helen to elope with him, and to fly to Asia. Helen consented; and Priam received her into his palace without difficulty, as his

Paris.

sister was then detained in a foreign country, and as he wished to show himself as hostile as possible to the Greeks. This affair was soon productive of serious consequences. When Menelaus had married Helen, all her suitors had bound themselves by a solemn oath to protect her person, and to defend her from every violence; and therefore the injured husband reminded them of their engagements, and called upon them to recover her. Upon this all Greece took up arms in the cause of Menelaus; Agamemnon was chosen general of all the combined forces, and a regular war was begun. Paris, meanwhile, who had refused Helen to the petitions and embassies of the Greeks, armed himself, with his brothers and subjects, to oppose the enemy; but the success of the war was neither hindered nor accelerated by his means. He fought with little courage, and at the very sight of Menelaus, whom he had so recently injured, all his resolution vanished, and he retired from the front of the army, where he walked before like a conqueror. In a combat with Menelaus, which he undertook by means of his brother Hector, Paris must have perished, had not Venus interfered, and stolen him from the resentment of his antagonist. He wounded, however, in another battle, Machaon, Euryphilus, and Diomedes; and, according to some opinions, he killed with one of his arrows the great Achilles.

The death of Paris is differently related: some say that he was mortally wounded by one of the arrows of Philoctetes, which had been once in the possession of Hercules; and that when he found himself languid on account of his wounds, he ordered himself to be carried to the feet of CEnone, whom he had basely abandoned, and who in the years of his obscurity had foretold him that he would solicit her assistance in his dying moments. He expired before he came into the presence of CEnone; and the nymph, still mindful of their former loves, threw herself upon his body, and stabbed herself to the heart, after she had plentifully bathed it with her tears. According to others, Paris did not immediately go to Troy when he left the Peloponnesus, but he was driven on the coasts of Egypt, where Proteus, who was king of the country, detained him; and when he heard of the violence which had been offered to the king of Sparta, he kept Helen at his court, and permitted Paris to retire. Whatever was the mode of his death, it took place, we are told, about 1188 B. C. See *TROY*, &c.

PARIS, the capital of the kingdom of France; is situated on the river Seine, in the isle of France, being one of the largest and finest cities in Europe. It derived its modern name from the ancient Parisii; and is supposed by some to have had the Latin name of *Lu-tetia*, from *Lutum*, "mud," the place where it now stands having been anciently very marshy and muddy. Ever since the reign of Hugh Capet, that is, for near 800 years, this city hath been the usual residence of the kings of France; it is of a circular form, and, including the suburbs, about five French leagues, or 15 English miles, in circumference. The number of its inhabitants is computed at about 500,000 (A); that of its

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streets

(A) The latest, and perhaps the most accurate, accounts, have stated the number of inhabitants in Paris at considerably upwards of 800,000. It is supposed to be less than London, but the difference is not thought to be very great.

Paris.

streets 912; and that of its houses upwards of 20,000, exclusive of the public structures of all sorts. Its greatest defect, according to some, is the want of good drinking-water; but others tell us, that very fine water is brought by an aqueduct from the village of Arcueil, not far from Paris, but own that the water of the Seine, and the city, is not good. The streets are of a proper breadth, well built, paved, and lighted. There is a great number of tribunals and offices here; most of which are kept in the Palais, situated on an island, to which it gives name. The number of churches, convents, hospitals, market-places, fountains, gates, and bridges, in this city is very great; besides the university, several academies, public libraries, royal palaces and castles, and above 100 hotels, some of them very stately. But to be more particular, that part called *la Cité*, lies in the centre, and consists of three islands formed by the Seine, viz. L'Isle de Palais, L'Isle de Notre Dame, and L'Isle Louviers. It is the principal of the three parts into which the city is divided, and contains the following remarkable structures: 1. Several bridges; of which some are of wood and others of stone, and have most of them a row of houses on each side. The chief of these are the Pont-neuf and Pont-royal: the first consists of 12 arches, which, properly speaking, make two bridges, the one leading from the suburbs of St Germain to the city, and the other from thence to that part called *la Ville*: there is a carriage-way in the middle 30 feet broad, and foot-walks on each side, raised two feet high; and in the centre stands a brass statue of king Henry IV. on horse-back. On this bridge is also the building called *La Samaritaine*, from a group of figures upon it representing our Saviour and the Samaritan woman, standing near Jacob's well. Here is a pump to raise the water, which through several pipes supplies the quarter of the Louvre, and some other parts of the town. The Pont-royal, which leads to the Thuilleries, was built by order of Lewis XIV. in the room of a wooden bridge that was carried away by the current in 1684. 2. The cathedral of Notre Dame, or our Lady, being dedicated to the Holy Virgin, which is a large stately Gothic structure, said to have been founded by king Childeric, and built in the form of a cross. Here, besides other great personages, are interred the cardinals de Retz and Noailles. From the two square towers belonging to it, is a noble prospect of the city and neighbouring country. Here is a vast quantity of gold and silver plate, rich tapestry, and fine paintings; and the number of the canons is no less than 50. Near it stands the palace of the archbishop, in which is the advocates library: the revenue of the archbishop amounts to about 180,000 livres; and his taxation to the court of Rome is 4283 guilders. 3. The priory and parish-church of St Bartholomew; the last of which is the most beautiful in all this part of the city, and stands near the Palais. 4. The Palais, which gives name to an island, and in which the parliament, with a great many other courts, are held. It was anciently the residence of the kings; but was given to the officers of justice by Philip the Fair, who also settled the parliament here in 1302. The parliament, consisting of several chambers, each of which has its department, is opened the day after Martinmas with a solemn mass, celebrated by a bishop, and continues sitting till the

8th of September, when a vacation-chamber is appointed during the interval, for criminal causes, and others which require dispatch. The jurisdiction of this court is of great extent. There is a beautiful chapel belonging to the Palais: in which is also the prison, or jail, for the jurisdiction of the parliament, called in French *La Conciergerie*. 5. The Hotel Dieu, the most ancient and largest hospital in Paris, in which 8000 sick and infirm poor are taken care of, and attended by the nuns of the order of St Augustine. 6. The hospital of St Catharine, where poor women and maidens are entertained three days, and attended by the above-mentioned nuns. 6. The Grande Chatelet, where some of the inferior courts of justice hold their sessions. 8. Fort l'Eveque, in which is the mint and a prison. It stands in or near the street La Ferroniere, in which Henry IV. was stabbed by Ravilliac. 9. St Germain l'Auxerrois, which is called the *royal palace church*; because the palaces of the Louvre and Thuilleries stand in its parish. 10. The Louvre, an ancient royal palace, of which a part was rebuilt by Lewis XIV. Had it been completed on the same plan, it would have been a most magnificent structure. On one of its gates is the following inscription, *Dum totum impleat orbem*: the meaning of which is, "May it last till the owner of it hath extended his sway over the whole world:" which implies what the French kings have constantly aimed at. Another inscription shows, at the same time, the vanity of the nation, and their abject flattery of their grand monarch. It may be rendered in English thus:

Louvre is a palace for great Lewis fit:
God him alone exceeds, as heaven does it.

This palace is joined to the Thuilleries by a gallery, in which are 180 models of fortresses, some situated in France, and some in other countries, executed with the utmost accuracy. Here is a valuable collection of paintings, the king's printing-house, the mint where the king's medals are struck, together with a prodigious quantity of rich tapestry hangings, and a collection of ancient arms, among which are those worn by Francis I. at the famous battle of Pavia. Here also the French academy, the academy of inscriptions and belles lettres, the royal academy of sciences, the academy of painting and sculpture, and the royal academy of architecture, have their meetings. The first of these was founded for the improvement of the French language; and as for the others, their names explain the design of their institution. 11. Le Palais Royal, which was built by Cardinal Richelieu, in the year 1636, and belongs to the duke of Orleans. It is said to contain pictures to the value of four millions of livres, which were purchased by the regent of that title, and of which a part belonged to Christina queen of Sweden. 12. The palace des Thuilleries, so called from a tile or brick-kiln which stood there formerly. This palace, as we observed above, communicates with the Louvre by a gallery. Behind it are exceeding pleasant gardens, adorned with fine walks, planted with ever-greens, and other trees, and with beautiful parterres, where are to be seen, all the year round, every flower according to its season. There are also three fine fountains, the garden, and a canal. Behind the Thuilleries, on the bank of the river, are pleasant walks,

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composed of four rows of lofty elms, to which vast crowds of people resort in the fine weather, as well as to the gardens. In the palace is a spacious and magnificent theatre; and hard by it are the Elysian fields, where a surprising number of coaches are to be seen in fair weather: not far off is the church of St Roche, where the celebrated poet Corneille is interred. 13. La place de Louis le Grand, a very beautiful square, in the centre of which is an equestrian statue of that king, which is justly accounted a masterpiece. 14. The Place, or Square des Victoires, which is round, and contains a statue of Lewis XIV. of gilt brass, erected to him by the duke de la Fuillade, with this inscription, *Viro immortalis*. 15. The Royal Library in the Rue Vivien, which contains 94,000 printed books, 30,000 manuscripts, and a prodigious collection of copperplates and medals. Near by, in the churchyard of St Joseph, lies the famous comic poet Moliere. 16. The parish-church of St Eustace, which stands in the quarter of the same name, and contains the tomb of the great minister Colbert. 17. The gate of St Dennis, which was erected as a triumphal arch in honour of Lewis XIV. 18. The gate of St Martin, erected also in form of a triumphal arch, in honour of the same king. Not far from hence, in the churchyard of St Nicholas des Champs, Peter Gassendi, and other learned men, are buried. 19. La Greve, an open place, where all public rejoicings are celebrated, and malefactors executed. 20. The Hotel de Ville, which is a large building of Gothic architecture, though adorned with columns of the Corinthian order. 21. The arsenal in the quarter of St Paul, consisting of many spacious buildings, among which are a foundery, and a house for making saltpetre. Here is a musketoon of two barrels, which it is said will pierce a thick board at the distance of six miles; and for discerning an object at that distance, has a telescope fixed to the barrel. 22. The Bastile, a kind of fortress like the Tower of London, which is used as a prison for state-criminals, and for such as are taken up by letters de cachet, *i. e.* by warrants signed by the king, and sealed. 23. Le Temple, a commandery of the knights of Malta, which gives name to a quarter, wherein, being a privileged place, artificers that are not freemen may carry on their business without molestation. The temple is the residence of the grand prior of the French nation. 24. That formerly called *La Maison professe des Jesuites*, in the quarter of St Anthony, in the church of which the hearts of Lewis XIII. and XIV. are preserved, each in a casket of gold, supported by two angels of massy silver, and as big as the life, hovering with expanded wings. In the same quarter is a fine looking-glass manufacture, where above 500 persons are employed in polishing plates cast at St Gobin; with a convent of Franciscans, the monks of which are called *Pique-puces*, or *Prick-fleas*.

In that part of the city called the *University*, the principal places are,

1. The university, which gives name to it, and which was first founded, as it is said, by Charles the Great: all the arts and sciences are taught here, particularly law, physic, and divinity. There are above 40 colleges; of which the chief are those of Sorbonne, of Navarre, of the faculty of physic, and of the four nations; but lectures are read only in eleven of them.

The head of the university is the rector, who is chosen every three months, but sometimes is continued several years. All the professors have settled salaries; the whole annual income of the university amounting, it is said, to about 50,000 livres. 2. The Gobelins, a house or palace, where a great number of ingenious artists, in various manufactures and handicrafts, are employed by the government. The most curious tapestry of all sorts is made here. 3. The General Hospital, a most noble foundation for the poor of the female sex, near 7000 objects being taken care of and provided for. The sick are carefully tended; and those that are in health are obliged to work; different wards being allotted for foundlings, for girls who sew or knit, prostitutes, idiots, and poor women: of the last, some are kept gratis, and others pay a small matter. In the castle of Bicetre, belonging to this hospital, and consisting of many large buildings, are near 4000 persons of the other sex, among which are persons disordered in their senses, and such as are afflicted with the venereal disease. To this hospital are also sent children who abuse their parents, and lead dissolute lives. The fund for the maintenance of it, and the hospital de la Pitié, where poor children are brought up, together with the Hotel Dieu, amounts to above two millions of livres *per annum*. 4. The King's Physic Garden, in which are an infinite variety of plants and trees, a certain sum being allotted by the king for keeping the garden in order, and improving it, and for lectures on botany, anatomy, chemistry, and the materia medica. A curious collection of natural curiosities is kept here. 5. The abbey of St Victor, in which is a public library, containing some very ancient and scarce books, several curious manuscripts, and a prodigious collection of maps and copperplates. 6. The College of Physicians, to which belong five professors. 7. The Little Chatelet, an old fortress, now used for a prison. 8. The Rue St Jacques, chiefly inhabited by booksellers. 9. The Royal College, and that of Lewis the Great: to the former belong twelve professors. 10. The Abbey of St Genevieve, in which is the marble monument of king Clovis, the shrine of St Genevieve, a large library, with a cabinet of antiquities and natural curiosities. 11. The Royal Observatory, a most stately edifice, built on the highest part of the city. Several astronomers are maintained here by the king. 12. The Royal Academy of surgery, instituted in 1731. 13. The Convent of Franciscans, in the quarter of St Andrew, the richest in France. In the same quarter are some remains of the palace of Julian the Apostate, in which Childebert, and some other kings of the Franks, afterwards resided. 14. The Play-house. 15. The Convent of Carthusians, in the quarter of Luxemburg, containing fine paintings. 16. The palace of Luxemburg, or Orleans, a magnificent structure, containing also some fine paintings by Rubens, and embellished with a noble garden. In the Hotel des Ambassadeurs, ambassadors extraordinary are entertained for three days, and those of remote countries all the time they stay at Paris. 17. The Abbey of St Germain des Prez, which contains a very valuable library, the manuscripts alone making 8000 volumes: here also is a cabinet of antiquities. 18. The Hotel royal des Invalides, erected by Lewis XIV. in which

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lame and superannuated officers and soldiers are maintained. The buildings take up no less than 17 acres. The number of common soldiers here amount to about 3000, and of officers to about 500. The chapel is very magnificent. Hard by is a military academy, in which 500 young gentlemen are instructed in the art of war.

Our readers from the above account will be able to conceive what Paris was; what it is we cannot so easily show them. Possessed by a set of men who disgrace human nature, and whose reign may be as short as that of a considerable number of those who have preceded them, its state in every sense is fluctuating and undetermined; inasmuch that what may be true of it to-day, would perhaps be false to-morrow. Respecting its public buildings, internal police, and other circumstances, it is impossible to speak with certainty. The bastille is levelled with the dust; but unjust imprisonments have not ceased; and other places in that extensive capital overflow with unfortunate persons who deserved a better fate; whose only crime is, that they are related to the late lamented king; that they were once nobles or allied to nobility; or that they are churchmen, or wish for some regular government to relieve their distracted country from the anarchy that has destroyed it. The church of Notre Dame, one of the finest cathedrals in Europe, is no more a place of Christian worship, but has been solemnly dedicated by the deluded people to *reason* and *philosophy*. Its archbishop has renounced the peaceful religion of Jesus (a thing almost unheard of in the history of Christianity); and has with his own hand knocked down those images which ancient superstition indeed had erected, but which should nevertheless have been removed with reverence and decency. On the whole, such strange and unlooked for revolutions have taken place in this once flourishing city, as renders it impossible to say where they may end, or what may be their consequences.—To give a history of the events that have occurred here within these few years, is not our business in an article of this sort. They have been partly, *i. e.* as far as they were then known, mentioned under the article FRANCE; and for further information, our readers were there referred to REVOLUTION. To this article we again refer them, in hopes that something decisive may (by the time that we arrive at that period of our work) have taken place with respect to the kingdom of which Paris is the capital.

PARIS, *Herb Paris*, or *Truelove*: A genus of the trigynia order, belonging to the octandria class of plants; and in the natural method ranking under the 11th order, *Sarmentaceæ*. The calyx is tetraphyllous; there are four petals, narrow in proportion; the berry quadrilocular. There is but one species, growing naturally in woods and shady places both in Scotland and England. It hath a single naked stem, greenish blossoms, and bluish black berries.—The leaves and berries are said to partake of the properties of opium; and the juice of the berries is useful in inflammations of the eyes. Linnæus says, that the root will vomit as well as ipecacuanha, but must be taken in double the quantity. Goats and sheep eat the plant; cows, horses, and swine, refuse it. Though this plant has been reckoned of a poisonous nature, being ranked among the aconites; yet late authors attribute quite other

properties to it, esteeming it to be a counter-poison, and good in malignant and pestilential fevers.

Herb PARIS of Canada or of America, Trillium, in botany, a genus of the hexandria trigynia class: The characters are, that it has a three-leaved spreading em-palement, and three oval petals; it has six awl-shaped stamina, terminated by oblong summits, and a roundish germen with three slender recurved styles, crowned by single stigmas; the germen afterwards becomes a roundish berry, with three cells filled with roundish seeds. There are three species.

Plaster of PARIS. See *PLASTER of Paris*.

PARISH, the precinct of a parochial church, or a circuit of ground inhabited by people who belong to one church, and are under the particular charge of its minister.

The word comes from the Latin *parochia*, the Greek *παροικία* habitation; compounded of *παρά* near, and *οἶκος* house.—Accordingly Du Cange observes, that the name *παροικία* was anciently given to the whole territory of a bishop, and derives it from *neighbourhood*; because the primitive Christians, not daring to assemble openly in cities, were forced to meet secretly in neighbour-houses.

In the ancient church there was one large edifice in each city for the people to meet in; and this they called *parochia*, "parish." But the signification of the word was afterwards enlarged, and by a parish was meant a diocese, or the extent of the jurisdiction of a bishop, consisting of several churches; unless we will suppose, as some do, that those bishops were only pastors of single churches. Du Pin observes, that country parishes had not their origin before the 4th century; but those of cities are more ancient. The city of Alexandria is said to have been the first that was divided into parishes.

How ancient the division of parishes is, is not indeed absolutely certain; for in the early ages of Christianity in this island, parishes were unknown, or at least signified the same that a diocese now does. There was then no appropriation of ecclesiastical dues to any particular church; but every man was at liberty to contribute his tithes to any priest or church he pleased, but he was obliged to do it to some; or if he made no special appropriation thereof, they were paid to the bishop, whose duty it was to distribute them among the clergy, and for other pious purposes, according to his own discretion. Camden says England was divided into parishes by archbishop Honorius about the year 630. Sir Henry Hobart maintains that parishes were first erected by the council of Lateran, held A. D. 1179. But Mr Selden proves, that the clergy lived in common without any division of parishes, long after the time mentioned by Camden; and it appears from the Saxon laws, that parishes were in being long before the council of Lateran in 1179. The distinction of parishes occurs in the laws of king Edgar, about the year 970. It seems pretty clear and certain, says judge Blackstone (*Com. Vol. I. p. 112.*), that the boundaries of parishes were first ascertained by those of a manor or manors; because it very seldom happens that a manor extends itself over more than one parish, though there are often many manors in one parish. The lords, he adds, as Christianity spread, began to build churches upon their own demesnes or wastes, in order to accommodate

Paris,
Parish.

Parish
Park.

commodate their tenants in one or two adjoining lordships; and that they might have divine service regularly performed therein, obliged all their tenants to appropriate their tithes to the maintenance of the one officiating minister, instead of leaving them at liberty to distribute them among the clergy of the diocese in general; and this tract of land, the tithes of which were so appropriated, formed a distinct parish; and this accounts for the frequent intermixture of parishes one with another. For if a lord had a parcel of land detached from the main of his estate, but not sufficient to form a parish of itself, it was natural for him to endow his newly-erected church with the tithes of such lands. Extra-parochial wastes and marsh lands, when improved and drained, are by 17 Geo. II. cap. 37. to be assessed to all parochial rates in the parish next adjoining. Camden reckons 9284 parishes in England; and Chamberlayne makes 9913. They are now generally reckoned about 10,000.

PARISH-Clerk. In every parish the parson, vicar, &c. hath a parish-clerk under him, who is the lowest officer of the church. These were formerly clerks in orders, and their business at first was to officiate at the altar; for which they had a competent maintenance by offerings; but they are now laymen, and have certain fees with the parson on christenings, marriages, burials, &c. besides wages for their maintenance. The law looks upon them as officers for life: and they are chosen by the minister of the parish, unless there is a custom for the parishioners or churchwardens to choose them; in which case the canon cannot abrogate such custom; and when chosen it is to be signified, and they are to be sworn into their office by the archdeacon, for which the court of king's bench will grant a mandamus.

PARISII (anc. geog.), a people of Gallia Celtica, inhabiting the country about the Sequana and Marona. Now a great part of the isle of France.—*Parisi* (Ptolemy), a people of Britain, having the Brigantes to the north and west, the German sea to the east, and the Coritani to the south, from whom they were separated by the Humber. Now *Holderness*, a peninsula of the East Riding of Yorkshire.

PARISIORUM CIVITAS. See LUTETIA.

PARIUM (anc. geog.), a noble city of Mysia Minor, with a port on the Propontis; called *Adraflia* by Homer, according to Pliny; but Strabo distinguishes them: according to others, the *Paeſos* of Homer. *Pariani*, the people (Strabo). The birthplace of Neoptolemus surnamed *Glossographus* (Strabo). Here stood a Cupid equal in exquisite workmanship to the Cnidian Venus.

PARK (French *parque*, i. e. *locus inclusus*), is a large quantity of ground inclosed and privileged for wild beasts of chase, by the king's grant or prescription. See CHASE and FOREST.

Manwood defines a chase to be "a privileged place, for beasts of venery, and other wild beasts of the forest and chase, *nam sylvestres, quam campeſtres*;" and differs from a chase or warren, in that it must be inclosed: for if it lies open, it is good cause of seizure

into the king's hands, as a thing forfeited; as a free chase is, if it be inclosed: besides, the owner cannot have an action against such as hunt in his park, if it lies open. No man can erect a park without licence under the broad seal; for the common law does not encourage matter of pleasure, which brings no profit to the commonwealth. But there may be a park in reputation erected without any lawful warrant; and the owner may bring his action against persons killing his deer.

To a park three things are required. 1. A grant thereof. 2. Inclosures by pale, wall, or hedge. 3. Beasts of a park; such as the buck, doe, &c. And where all the deer are destroyed, it shall no more be accounted a park; for a park consists of vert, venison, and inclosure; and if it is determined in any of them, it is a total disparking.

Parks as well as chases are subject to the common law, and are not to be governed by the forest laws.

PARK, as connected with gardening. See GARDENING.

A park and a garden are more nearly allied than a farm and a garden*, and can therefore be accommodated to each other without any disparagement to either. A farm loses some of its characteristic properties by the connection, and the advantage is on the part of the garden; but a park thus bordered retains all its own excellencies; they are only enriched, not counteracted, by the intermixture. The most perfect composition of a place that can be imagined, consists of a garden opening into a park, with a short walk through the latter to a farm, and ways along its glades to ridings in the country; but to the farm and the ridings the park is no more than a passage; and its woods and its buildings are but circumstances in their views; its scenes can be communicated only to the garden.

The affinity of the two subjects is so close, that it would be difficult to draw the exact line of separation between them. Gardens have lately encroached very much both in extent and in style on the character of a park; but still there are scenes in the one which are out of the reach of the other. The small sequestered spots which are agreeable in a garden would be trivial in a park; and the spacious lawns which are among the noblest features of the latter, would in the former fatigue by their want of variety; even such as, being of a moderate extent, may be admitted into either, will seem bare and naked, if not broken in the one; and lose much of their greatness, if broken in the other. The proportion of a part to the whole is a measure of its dimensions: it often determines the proper size for an object, as well as the space fit to be allotted to a scene; and regulates the style which ought to be assigned to either.

But whatever distinctions the extent may occasion between a park and a garden, a state of highly cultivated nature is consistent with each of their characters; and may in both be of the same kind, though in different degrees.

The excellencies both of a park and of a garden are happily blended at Hagley (A), where the scenes are equally

Park.

(A) Near Stourbridge, in Worcestershire, the seat of Lord Lyttelton.

Park.

equally elegant and noble. It is situated in the midst of a fertile and lovely country, between the Clent and the Witchberry hills; neither of which are within the pale, but both belong to the place. The latter rise in three beautiful swells. One of them is covered with wood; another is an open sheep-walk, with an obelisk on the summit; on the third, the portico of the temple of Theseus, exactly on the model of that at Athens, and little less in the dimensions, stands boldly out upon the brow, backed by the dark ground of a fir plantation, and has a most majestic appearance above the steep which fall before and beside it. The house is seen to the greatest advantage from these eminences, and every point of them commands some beautiful prospect. The busy town of Stourbridge is just below them; the ruins of Dudley castle rise in the off-skip; the country is full of industry and inhabitants; and a small portion of the moor, where the minerals, manufactured in the neighbourhood, are dug, breaking in upon the horizon, accounts for the richness, without derogating from the beauty, of the landscape. From the Clent hills the views are still greater; they extend on one side to the black mountains in Wales, a long ridge which appears, at 60 miles distance, in the interval between the unwieldy heap of the Malvern hills and the solitary peak of the Wrekin, each 30 miles off, and as many asunder. The smoke of Worcester, the churches in Birmingham, and the houses in Stourbridge, are distinctly visible. The country is a mixture of hill and dale, and strongly inclosed; except in one part, where a heath, varied by rising grounds, pieces of water, and several objects, forms an agreeable contrast to the cultivation which surrounds it. From the other extremity of the Clent hills, the prospect is less extensive; but the ground is more rude and broken; it is often overspread with large and beautiful woods; and the view is dignified with numerous seats. The hills also being very irregular, large advanced promontories frequently interrupt the sight, and vary the scene: in other parts, deep valleys shelving down towards the country below, exhibit the objects there in different lights. In one of these hollows is built a neat cottage, under a deep descent, sheltered besides by plantations, and presenting ideas of retirement in the midst of so much open exposure; from the heights above it, is seen all that view which before was commanded from the Witchberry hills, but which is seen here over Hagley park; a noble fore-ground, beautiful in itself, and completing the landscape.

The house, though low in the park, is yet above the adjacent country, which it overlooks to a very distant horizon. It is surrounded by a lawn of fine uneven ground, and diversified with large clumps, little groups, and single trees. It is open in front, but covered on one side by the Witchberry hills; on the other side, and behind, by the eminences in the park, which are high and steep, and all overspread with a lofty hanging wood. The lawn pressing to the foot, or creeping up the slopes of these hills, and sometimes winding along glades into the depth of the wood, traces a beautiful outline to a sylvan scene, already rich to luxuriance in massiness of foliage and stateliness of growth.

But though the wood appears to be entire, it in reality opens frequently into lawns, which occupy much of the space within it. In the number, the variety,

N^o 259.

and the beauty of these lawns, in the shades of the separations between them, in their beauties also, and their varieties, the glory of Hagley consists. No two of the openings are alike in dimensions, in shape, or in character. One is of no more than five or six acres; another of not less than fifty; and others are of all the intermediate sizes. Some stretch out into lengthened glades; some widen every way: they are again distinguished by buildings, by prospects, and often by the style only of the plantations around them. The boundary of one is described by a few careless lines; that of another is composed of many parts, very different, and very irregular: and the ground is never flat; but falls sometimes in steep descents, sometimes in gentle declivities, waves along easy swells, or is thrown into broken inequalities, with endless variety.

An octagon seat, sacred to the memory of Thomson, and erected on his favourite spot, stands on the brow of a steep; a mead winds along the valley beneath, till it is lost on either hand behind some trees. Opposite to the seat, a noble wood crowns the top, and feathers down to the bottom of a large oval swelling hill. As it descends on one side, the distant country becomes the off-skip. Over the fall, on the other side, the Clent hill appears. A dusky antique tower stands just below them, at the extremity of the wood; and in the midst of it is seen a Doric portico, called *Pope's Building*, with part of the lawn before it. The scene is very simple: the principal features are great; they prevail over all the rest, and are intimately connected with each other.

The next opening is small, circling about a rotunda on a knoll, to the foot of which the ground rises every way. The trees which surround it are large; but their foliage is not very thick; and their stems appearing beneath, their ramifications between the boughs are, in so confined a spot, very distinguished and agreeable circumstances. It is retired; has no prospect; no visible outlet but one, and that is short and narrow, to a bridge with a portico upon it, which terminates a piece of water.

The grove behind the rotunda separates this from a large, airy, forest glade, thinly skirted with wood, careless of dress, and much overgrown with fern. The wildness is an acceptable relief in the midst of so much elegance and improvement as reign in the neighbouring lawns: and the place is in itself pleasant; in no part confined; and from a Gothic seat at the end is a perspective view of that wood and tower which were seen before in front, together with the Witchberry hills, and a wide range of country.

The tower, which in prospect is always connected with wood, stands however, on a piece of down, which stretches along the broad ridge of a hill, and spreads on each hand for some way down the sides. Thick groves catch the falls. The descent on the right is soon lost under the trees; but that on the left being steeper and shorter, it may be followed to the bottom. A wood hangs on the declivity, which is continued in the valley beneath. The tower overlooks the whole: it seems the remains of a castle, partly entire, partly in ruins, and partly overgrown with bushes. A finer situation cannot be imagined: It is placed in an exposed unfrequented spot; commands an extensive prospect; and is everywhere an interesting object.

Park.

At the end of the valley below it, in an obscure corner, and shut out from all view, is a hermitage, composed of roots and of moss: high banks, and a thick covert darkened with horse-chestnuts, confine the sequestered spot: a little rill trickles through it, and two small pieces of water occupy the bottom. They are seen on one side through groups of trees; the other is open, but covered with fern. This valley is the extremity of the park; and the Clent hills rise in all their irregularity immediately above it.

The other descent from the castle is a long declivity, covered like the rest with noble woods, in which fine lawns are again embosomed, differing still from the former, and from each other. In one, the ground is very rough, the boundary is much broken, and marked only by the trunks of the trees which shoot up high before the branches begin. The next is more simple; and the ground falls from an even brow into one large hollow, which slopes towards the glen, where it sinks into the covert. This has a communication through a short glade, and between two groves, with another called the *Tinian lawn*, from the resemblance which it is said to bear to those of that celebrated island: it is encompassed with the stateliest trees, all fresh and vigorous, and so full of leaf, that not a stem, not a branch, appears, but large masses of foliage only describe an undulating outline: the effect, however, is not produced by the boughs feathering down to the bottom; they in appearance shoot out horizontally, a few feet above the ground, to a surprising distance, and form underneath an edging of shade, into which the retreat is immediate at every hour of the day. The verdure of the turf is as luxuriant there as in the open space: the ground gently waves in both over easy swells and little dips, just varying, not breaking, the surface. No strong lines are drawn; no striking objects are admitted; but all is of an even temper, all mild, placid, and serene; in the gayest season of the day not more than cheerful, in the stillest watch of night not gloomy. The scene is indeed peculiarly adapted to the tranquillity of the latter, when the moon seems to repose her light on the thick foliage of the grove, and steadily marks the shade of every bough. It is delightful then to saunter here, and see the grass, and the gossamer which entwines it, glistening with dew; to listen and hear nothing stir, except perhaps a withered leaf dropping gently through a tree; and, sheltered from the chill, to catch the freshness of the evening air: a solitary urn, chosen by Mr Pope for the spot, and now inscribed to his memory, when shown by a gleam of moon-light through the trees, fixes that thoughtfulness and composure to which the mind is insensibly led by the rest of this elegant scene.

The Doric Portico, which also bears his name, tho' not within sight, is near: it is placed on the declivity of a hill; and Thomson's seat, with its groves and appendages, are agreeable circumstances in the prospect before it. In the valley beneath is fixed a bench, which commands a variety of short views; one is up the ascent to the portico, and others through openings in the wood to the bridge and the rotunda.

The next lawn is large: the ground is steep and irregular, but inclines to one direction, and falls from every side into the general declivity: the outline is diversified by many groups of trees on the slopes; and

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frequent glimpses of the country are seen in perspective through openings between them. In the brow is a seat, in the proudest situation of all Hagley; it commands a view down the bold sweep of the lawn, and over a valley filled with the noblest trees, up to the heights beyond. One of those heights is covered with a hanging wood; which opens only to show Thomson's seat, and the groves and the steep about it: the others are the Witchberry hills, which seem to press forward into the landscape; and the massy heads of the trees in the vale, uniting into a continued surface, form a broad base to the temple of Theseus, hide the swell on which it is built, and crowd up to the very foundation. Farther back stands the obelisk; before it is the sheep-walk; behind it the Witchberry wood. The temple is backed by the firs; and both these plantations are connected with that vast sylvan scene which overspreads the other hill and all the intermediate valley. Such extent of wood; such variety in the disposition of it; objects so illustrious in themselves, and ennobled by their situations, each contrasted to each, every one distinct, and all happily united: the parts so beautiful of a whole so great, seen from a charming lawn, and surrounded by a delightful country, compose all together a scene of real magnificence and grandeur.

The several lawns are separated by the finest trees; which sometimes grow in airy groves, chequered with gleams of light, and open to every breeze; but more frequently, whose great branches meeting or crossing each other, cast a deep impenetrable shade. Large boughs feathering down often intercept the sight; or a vacant space is filled with coppice-wood, nut, hawthorn, and hornbeam, whose tufted heads mixing with the foliage, and whose little stems clustering about the trunks of the trees, thicken and darken the plantation. Here and there the division is of such coppice-wood only, which then being less constrained and oppressed, springs up stronger, spreads further, and joins in a low vaulted covering: in other places the shade is high, over-arched by the tallest ash, or spreads under the branches of the most venerable oaks. They rise in every shape, they are disposed in every form in which trees can grow. The ground beneath them is sometimes almost level; sometimes a gentle swell; but generally very irregular and broken. In several places, large hollows wind down the sides of the hills, worn in the stormy months by water-courses, but worn many ages ago. Very old oaks in the midst of the channels prove their antiquity: some of them are perfectly dry most part of the year; and some are watered by little rills all the summer: they are deep and broad; the sides are commonly steep; often abrupt and hollow; and the trees on the bank sometimes extend their roots, all covered with moss, over the channels of the water. Low down in one of these glens, under a thick shade of horse-chestnuts, is a plain bench, in the midst of several little currents and water falls, running among large loose stones, and the stumps of dead trees, with which the ground is broken. On the brink of another glen, which is distinguished by a numerous rookery, is a seat in a still wilder situation, near a deeper hollow, and in a darker gloom: the falls are nearly perpendicular; the roots of some of the trees are almost bare, from the earth having crumbled

Park.

Park,
Parker.

away; large boughs of others, sinking with their own weight, seem ready to break from the trunks they belong to; and the finest ash, still growing, lie all afloat the water-course below, which, though the stream runs in winter only, yet constantly retains the black tinge of damp, and casts a chill all around.

Gravel-walks are conducted across the glens, through the woods, the groves, or the thickets, and along the sides of the lawns, concealed generally from the sight, but always ready for the communication, and leading to the principal scenes. The frequency of these walks, the number and the style of the buildings, and the high preservation in which all the place is kept, give to the whole park the air of a garden. There is, however, one spot more peculiarly adapted to that purpose, and more artificially disposed than the rest; it is a narrow vale, divided into three parts: one of them is quite filled with water, which leaves no room for a path, but thick trees on either side come down quite to the brink; and between them the sight is conducted to the bridge with a portico upon it, which closes the view: another part of this vale is a deep gloom, overhung with large ash and oaks, and darkened below by a number of yews: these are scattered over very uneven ground, and open underneath; but they are encompassed by a thick covert, under which a stream falls, from a stony channel, down a rock; other rills drop into the current, which afterwards pours over a second cascade into the third division of the vale, where it forms a piece of water, and is lost under the bridge. The view from this bridge is a perfect operascene, through all the divisions of the vale up to the rotunda. Both these buildings, and the other decorations of the spot, are of the species generally confined to a garden. The hermitage also, which has been described, and its appendages, are in a style which does not belong to a park; but through all the rest of the place, the two characters are intimately blended. The whole is one subject; and it was a bold idea to conceive that one to be capable of so much variety; it required the most vigorous efforts of a fertile fancy to carry that idea into execution. See GARDENING.

PARK of Artillery. See ARTILLERY.

PARK of Provisions, in military affairs, the place where the sutlers pitch their tents in the rear, and sell their provisions to the soldiers. Likewise that place where the bread-waggons are drawn up, and where the troops receive their ammunition-bread, being the store of the army.

PARKER (Matthew), the second Protestant archbishop of Canterbury, was born at Norwich in the year 1504, the 19th of Henry VII. His father, who was a man in trade, died when our author was about 12 years old; but his mother took special care of his education, and at the age of 17 sent him to Corpus-

Christi college in Cambridge, where, in 1523, he took his bachelor's degree. In 1527 he was ordained, created master of arts, and chosen fellow of the college. Having obtained a licence to preach, he frequently held forth at St Paul's cross in London, and in other parts of the kingdom. In 1533 or 1534 he was made chaplain to queen Anne Boleyn, who obtained for him the deanery of Stoke-Clare in Suffolk, where he founded a grammar-school. After the death of the queen, king Henry made him his own chaplain; and in 1541 prebendary of Ely. In 1544, he was, by the king's command, elected master of Corpus-Christi college, and the following year vice-chancellor of the university. In 1547 he lost the deanery of Stoke, by the dissolution of that college. In the same year he married the daughter of Robert Harlestone, a Norfolk gentleman.

In the year 1552 he was nominated, by Edward VI. to the deanery of Lincoln, which, with his other preferments, enabled him to live in great affluence: but the papist Mary was hardly seated on the throne before he was deprived of every thing he held in the church, and obliged to live in obscurity, frequently changing his place of abode to avoid the fate of the other reformers.

Queen Elizabeth ascended the throne in 1558; and in the following year Dr Parker, from indigence and obscurity, was at once raised to the see of Canterbury (A); an honour which he neither solicited nor desired. In this high station he acted with spirit and propriety. He visited his cathedral and diocese in 1560, 1565, 1570, and 1573. He repaired and beautified his palace at Lambeth at a vast expence. The sum which the repairs of the palace and great hall at Canterbury cost him was upwards of 1400 l. sterling, which is at least equal to ten times the sum now-a-days. Both the palace and great hall were in decay, partly through the injuries of time, and partly through that of fire. The hall, built by Archbishop Hubert in the 12th century, was famous in history for the great feasts that had been made there by archbishops and abbots in former times; in particular, at the nuptial feasts of king Edward I. in 1290; at the installation of the abbot of St Austin's in 1309; at the inthronization of George Nevill archbishop of York in 1464; and of Archbishop Warham in 1504, when Edward duke of Buckingham acted as lord high steward of his household; and, lastly, for the entertainment given by that archbishop in 1519 to the emperor Charles V. Henry VIII. Queen Catherine, &c. In 1565 Archbishop Parker gave three entertainments in this hall at Whitsuntide (which lasted three days), on Trinity Sunday, and in affize time. At the two first of these the archbishop himself sat in the midst of the uppermost table; on his left hand the Mayor, &c. and so

(A) He was consecrated December 17th 1559, in Lambeth chapel, by Barlow bishop of Chichester, Scory bishop of Hereford, Coverdale bishop of Exeter, and Hodgkin suffragan bishop of Bedford. This deserves to be particularly mentioned, because the Romanists asserted afterwards that he had been consecrated at the Nag's-head inn or tavern in Cheapside. But this notorious and improbable falsehood hath been fully confuted by Mason in his Vindication of the Church of England concerning the Consecration and Ordination of Bishops, 1613, folio; by Bramhall in his Consecration of Protestant Bishops vindicated; and by Courayer in his Defence of the Validity of English Ordinations, 1728, 3 vols 8vo; and even by many Catholics.

Parker. so on one side of the hall a continued row of men according to their rank filled the other tables; and on his right hand sat only some noble women and ladies of quality, the whole length of the hall, corresponding to the row of men on the other side; which order of placing the women was observed in honour of the queen. The first rank of guests being risen, and the tables cleared, they were furnished again, and filled the second time. At the last feast, which was grander than all the rest, the archbishop entertained the two judges who went that circuit (B), the attorney-general, the high-sheriff, with all who met at these assizes, as justices of the peace, advocates and common lawyers, and all the rest of proctors and attorneys; who all (with a promiscuous company) in troops came in. The hall was set forth with much plate of silver and gold, adorned with much tapestry of Flanders; and dainties of all sorts were served in excellent order by none but the archbishop's servants, the table being often the same day furnished afresh with new guests: while the ladies were nobly entertained in inner parlours by Mrs Parker, the hall being now filled only with gentlemen. Otherwise, at these feasts, it was the archbishop's custom, in honour of matrimony, to entertain both men and their wives. Of this noble hall and palace, now within 200 years, there is little or nothing left except a few ruins. On Whitsunday 1570, and the two following days, this archbishop feasted the citizens of Canterbury and their wives in the same manner as he had done before: and on Trinity Sunday (after consecrating Bishop Curteis of Chichester) he made another most archiepiscopal feast, inviting another archbishop (viz. Grindal of York, who came thither for confirmation) to be his guest: besides whom were present Horn bishop of Winchester, and Curteis aforesaid of Chichester. At the lower tables sat all the ministers and servants whatsoever, even the children, who belonged to that church; and at the remotest tables, but in the same hall, in sight, sat the poor of both sexes of the hospitals of St John's and Harbledown. On July 11th, being assizes time, the judges, high-sheriff, gentlemen, and the common sort, were all feasted by the archbishop in a splendid manner as before. Soon after Bishop Sandys of Worcester, elect of London, came to Canterbury to be confirmed. The archbishop, on his return, lodged the first night at Sittingbourn, and the next night (after dining at Gravesend) came to Lambeth in barges by Thames, with all his family. Sept. 7. 1573, being Q. Elizabeth's birth-day, Archbishop Parker entertained her majesty, and as many noblemen, &c. as were present at Archbishop Warham's entertainment in the same hall 54 years before. The archbishop (to use his own words, in a letter to Archbishop Grindal of York) "met her highness, as she was coming to Dover, upon Folkstone Down. I left her at Dover, and came home to Bekeborn that night; and after that went to Canterbury to receive her majesty there. Which I did, with the bishops of Lincoln and Rochester, and my suffragan [of Dover], at the west door; where,

after the grammarian had made his oration to her upon her horse-back, she alighted. We then kneeled down, and said the psalm *Deus misereatur*, in English, with certain other collects briefly; and that in our chimers and rochets. The quire, with the dean and prebendaries, stood on either side of the church, and brought her majesty up with a square song; she going under a canopy, borne by four of her temporal knights, to her traverse, placed by the communion-board, where she heard evening song; and after departed to her lodging at St Austin's, whither I waited upon her. From thence I brought certain of the council, and divers of the court, to my house to supper, and gave them 14 or 15 dishes, furnished with two mefs, at my long table, whereat sat about 20; and in the same chamber a third mefs, at a square table, whereat sat 10 or 12; my less hall having three long tables furnished with my officers, and with the guard, and others of the court: and so her majesty came every Sunday to church to hear the sermon. And upon one Monday it pleased her highness to dine in my great hall, thoroughly furnished with the council, Frenchmen, ladies, gentlemen, and the mayor of the town, with his brethren, &c.; her highness sitting in the midst, having two French ambassadors [Gondius and Mothe-Fenelon] at the end of the table, and four ladies of honour at the other end. And so three mefs were served by her nobility at washing, her gentlemen and guard bringing her dishes, &c." On which the Archbishop of York, in his answer, made this reflection: "Your grace's large description of the entertainment at Canterbury did so lively set forth the matter, that in reading thereof I almost thought myself to be one of your guests there, and as it were beholding the whole order of all things done there. Sir, I think it shall be hard for any of our coat to do the like for one hundred years, and how long after God knoweth." In this progress Lord Treasurer Burghley was lodged with Mr Pearson, the eleventh prebendary, who, the archbishop says, "had a fine house."

He founded several scholarships in Bennet or Corpus Christi college in Cambridge, and gave large presents of plate to that and to other colleges in this university. He gave 100 volumes to the public library. He likewise founded a free-school at Rochdale in Lancashire. He took care to have the sees filled with pious and learned men; and, considering the great want of bibles in many places, he, with the assistance of other learned men, improved the English translation, had it printed on a large paper, and dispersed through the kingdom. This worthy prelate died in the year 1575, aged 72, and was buried in his own chapel at Lambeth. He was pious without affectation or austerity, cheerful and contented in the midst of adversity, moderate in the height of power, and beneficent beyond example. He wrote several books; and also published four of our best historians; *Matthew of Westminster*, *Matthew Paris*, *Asher's Life of King Alfred*, and *Tho. Walsingham*. The learned archbishop also translated the Psalter. This version was printed, but without a name; and has been

(B) This proves that the judges of assize then came to Canterbury, though it was then a county in itself, being so made in 1461.

Parker. attributed to an obscure poet of the name of Keeper. This was Wood's opinion; but it is more than probable that the learned author of the *Athenæ Oxon.* was wrong. See Gentleman's Magazine for 1781, p. 566. where Parker is proved to be the author of a version of the Psalms.

PARKER (Samuel), an English clergyman, who, by a temporizing spirit, aided by excellent parts and considerable learning, raised himself to the bishopric of Oxford. He was born September 1640, at Northampton, where his father John then practised the law. John had been bred to that profession, in one of the temples at London; and, being afterwards against the king, was made a member of the high court of justice in 1649, where he gave sentence against the three lords, Capel, Holland, and Hamilton, who were beheaded. During Cromwell's usurpation, he was made an assistant committee man for his county. In 1650 he published a book in defence of the new government, as a commonwealth, without a king or house of lords. June 1655, when Cromwell was declared protector, he was appointed a commissioner for removing obstructions at Worcester-house in the Strand, near London, and was sworn serjeant at law next day. January 1659, he was appointed one of the barons of the exchequer by the Rump-parliament; but, upon a complaint against him, was quickly displaced. However, he was again regularly made serjeant at law, on the recommendation of Chancellor Hyde, at the first call after the restoration. In the mean time, he carefully educated his son Samuel among the Puritans in Northampton; whence, being fit for the university, he was sent to Wadham college in Oxford, and admitted, in 1659, under a presbyterian tutor. Here he led a strict and religious life, entered into a weekly society, then called the *Gruellers*, because (as Wood observes) their chief diet was water-gruel; and it was observed that he put more graves in his porridge than all the rest. They fasted and prayed, and met at a house at Halywell, where he was so zealous and constant at prayers, sermons, and sacraments, that he was esteemed one of the most precious young men in the university. He took the degree of A. B. February 28. 1659-60. Upon the restoration, he hesitated what side to take; but continuing publicly to speak against Episcopacy, he was much discountenanced by the new warden Dr Blandford, who had been appointed to that office upon the dawn of the restoration in 1659. Upon this he removed to Trinity college, where, by the advice of Dr Ralph Ruthwell, then a senior fellow of that society, he was rescued from the prejudices of an unhappy education, which in fact he publicly avowed in print. He then became a zealous Anti-puritan, and for many years acted the part of what was then called a true son of the church. In this temper, having taken the degree of M. A. in 1663, he entered into holy orders, resorted frequently to London, and became chaplain to a nobleman; continuing to display his wit upon his old friends the Presbyterians, Independents, &c.

In 1665, he published some Philosophical Essays, and was elected a member of the Royal Society: these Essays, he dedicated to Sheldon archbishop of Canterbury, who became his patron; and in 1667 made him his chaplain. Being thus in the road to preferment, he left Oxford, and resided at Lambeth,

under the eye of his patron; who, in 1670, made him archdeacon of Canterbury, in the room of Dr. Sancroft, afterwards archbishop. November the same year, he put himself in the train of William prince of Orange, who visited Cambridge, and had the degree of D. D. conferred upon him there. November 1672, he was installed a prebendary of Canterbury; and was made rector of Ickham and Chatham in Kent by the archbishop much about the same time. He was very obsequious to the court during the reign of Ch. II. and upon the accession of his brother to the throne, he continued the same servile complaisance; and he soon reaped the fruits of it in the bishopric of Oxford, to which he was appointed by James II. on the death of Dr Fell in 1686, being allowed to hold the archdeaconry of Canterbury in commendam. He was likewise made a privy-counsellor, and constituted by a royal mandamus president of Magdalen-college in Oxford. These favours, however, were the price of his religion, which he scrupled not to offer up a sacrifice to his ambition. In this new change, he became one of the Romish mercenaries, prostituting his pen in defending transubstantiation, and the worship of saints and images. The Papists made sure of him as a proselyte; one of whom says that he even proposed in council, whether it was not expedient, that at least one college in Oxford should be allowed Catholics, that they might not be forced to be at such charges, by going abroad to study. In the same way, having invited two Popish noblemen, and one of the church of England, to an entertainment, he drank the king's health, wishing a happy success to all his affairs; adding, that the Protestant religion in England seemed to him to be in no better a condition than that of Buda was before it was taken, and that they were next to Atheists who dared to defend that faith. Nay, so shameful was his conduct, that the cooler among the Romanists condemned it as too hot and precipitate. For example, Father Peter, a Jesuit, and privy-counsellor to King James, in a letter to Father la Chaise, confessor to Louis XIV. writes thus: "The bishop of Oxford has not yet declared himself openly; the great obstacle is his wife, whom he cannot rid himself of; his design being to continue a bishop, and only change communion, as it is not doubted but the king will permit, and our holy father confirm; though I don't see how he can be farther useful to us in the religion he is in; because he is suspected, and of no esteem among the heretics of the English church: nor do I see that the example of his conversion is like to draw many others after him, because he declared himself so suddenly. If he had believed my counsel, which was to temporize for some longer time, he would have done better; but it is his temper, or rather zeal, that hurried him on to it." Accordingly his authority in his diocese was so very insignificant, that when he assembled his clergy, and desired them to subscribe an "Address of Thanks to the King for his Declaration of Liberty of Conscience," they rejected it so unanimously, that he got but one clergyman to concur with him in it. Bishop Burnet represents him to be a man of no judgment, and of as little virtue; and as to religion rather impious: that he was covetous and ambitious, and seemed to have no other sense of religion but as a political interest, and

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tain, that, long before the introduction of the Norman Parliament. language into England, all matters of importance were debated and settled in the great councils of the realm. A practice which seems to have been universal among the northern nations, particularly the Germans; and carried by them into all the countries of Europe, which they over-ran at the dissolution of the Roman empire. Relicks of which constitution, under various modifications and changes, are still to be met with in the diets of Poland, Germany, and Sweden, and lately in the assembly of the estates in France: for what is there now called the *parliament*, is only the supreme court of justice, consisting of the peers, certain dignified ecclesiastics, and judges; which neither is in practice, nor is supposed to be in theory, a general council of the realm.

In England, however, this general council hath been ³Antiquity held immemorially, under the several names of *micbel*-of, in Eng-
synoth, or "great council;" *micbel-gemote*, or "great land.
meeting;" and more frequently *wittena-gemote*, or "the meeting of wise men." It was also styled in Latin, *commune concilium regni*, *magnum concilium regis*, *curia magna*, *conventus magnatum vel procerum assisa generalis*, and sometimes *communitas regni Angliæ*. We have instances of its meeting to order the affairs of the kingdom, to make new laws, and to amend the old, or, as Eleta expresses it, *novis injuriis emerfis nova constituere remedia*, so early as the reign of Ina king of the West Saxons, Offa king of the Mercians, and Ethelbert king of Kent, in the several realms of the heptarchy. And after their union, the Mirrour informs us, that King Alfred ordained for a perpetual usage, that these councils should meet twice in the year, or oftener, if need be, to treat of the government of God's people; how they should keep themselves from sin, should live in quiet, and should receive right. Our succeeding Saxon and Danish monarchs held frequent councils of this sort, as appears from their respective codes of laws; the titles whereof usually speak them to be enacted, either by the king with the advice of his *wittena-gemote*, or wise men, as, *Hæc sunt instituta, quæ Edgarus rex consilio sapientium suorum instituit*; or to be enacted by those sages with the advice of the king; as, *Hæc sunt judicia, quæ sapientes consilio regis Ethelstani instituerunt*; or, lastly, to be enacted by them both together, as *Hæc sunt institutiones, quas rex Edmundus et episcopi sui cum sapientibus suis instituerunt*.

There is also no doubt but these great councils were occasionally held under the first princes of the Norman line. Glanvil, who wrote in the reign of Henry II. speaking of the particular amount of an amercement in the sheriff's court, says, it had never yet been ascertained by the general assize or assembly, but was left to the custom of particular counties. Here the general assize is spoken of as a meeting well known, and its statutes or decisions are put in a manifest contradistinction to custom, or the common law. And in Edward III.'s time, an act of parliament, made in the reign of William the Conqueror, was pleaded in the case of the abbey of St. Edmund's-bury, and judicially allowed by the court.

Hence it indisputably appears, that parliaments, or general councils, are coeval with the kingdom itself. How those parliaments were constituted and compa-
fed,

PARKINSONIA, so called in honour of the English botanist *Parkinson*: A genus of the monogynia order, belonging to the decandria class of plants; and in the natural method it ranks under the 33d order, *Lomentaceæ*. The calyx is quinquefid; there are five petals, all of them oval except the lowest, which is reniform; there is no style; the legumen moniliform, or like strong beads. We know but one species of this plant, which is very common in the Spanish West Indies, but has of late years been introduced into the English settlements, for the beauty and sweetness of its flowers. In the countries where it grows naturally, it rises to be a tree of 20 or more feet high, and bears long slender bunches of yellow flowers; which have a most agreeable sweet scent.

PARLEY, a conference with an enemy. Hence, to beat or sound a parley, is to give a signal for holding such a conference by beat of drum, or sound of trumpet.

PARLIAMENT, the grand assembly of the three states of this kingdom, summoned together by the king's authority, to consider of matters relating to the public welfare, and particularly to enact and repeal laws.

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Parliament, fed, is another question, which has been matter of great dispute among our learned antiquarians; and particularly, whether the commons were summoned at all; or, if summoned, at what period they began to form a distinct assembly. But without entering into controversies of this sort, it may be sufficient to observe, that it is generally agreed, that in the main the constitution of parliament, as it now stands, was marked out so long ago as the 17th year of King John, A. D. 1215, in the great charter granted by that prince; wherein he promises to summon all archbishops, bishops, abbots, earls, and greater barons, personally; and all other tenants in chief under the crown, by the sheriff and bailiffs; to meet at a certain place, with 40 days notice, to assess aids and scutages when necessary. And this constitution has subsisted in fact at least from the year 1266, 49 Henry III. there being still extant writs of that date, to summon knights, citizens, and burghesses, to parliament. We proceed therefore to inquire wherein consists this constitution of parliament, as it now stands, and has stood, for the space of at least 500 years. And in the prosecution of this inquiry, we shall consider, first, The manner and time of its assembling: Secondly, Its constituent parts: Thirdly, The laws and customs relating to parliament: Fourthly, The methods of proceeding, and of making statutes, in both houses: And, lastly, The manner of the parliament's adjournment, prorogation, and dissolution.

5
Parliament
summoned
only by the
king.

I. *As to the manner and time of assembling.* The parliament is regularly to be summoned by the king's writ or letter, issued out of chancery by advice of the privy-council, at least 40 days before it begins to sit. It is a branch of the royal prerogative, that no parliament can be convened by its own authority, or by the authority of any, except the king alone. And this prerogative is founded upon very good reason. For, supposing it had a right to meet spontaneously, without being called together, it is impossible to conceive that all the members, and each of the houses, would agree unanimously upon the proper time and place of meeting: and if half of the members met, and half absented themselves, who shall determine which is really the legislative body, the part assembled, or that which stays away? It is therefore necessary, that the parliament should be called together at a determinate time and place; and, highly becoming its dignity and independence, that it should be called together by none but one of its own constituent parts: and, of the three constituent parts, this office can only appertain to the king; as he is a single person, whose will may be uniform and steady; the first person in the nation, being superior to both houses in dignity; and the only branch of the legislature that has a separate existence, and is capable of performing any act at a time when no parliament is in being. Nor is it an exception to this rule, that, by some modern statutes, on the demise of a king or queen, if there be then no parliament in being, the last parliament revives, and is to sit again for six months, unless dissolved by the successor: for this revived parliament must have been originally summoned by the crown.

It is true, that the convention-parliament which restored King Charles II. met above a month before his

return; the lords by their own authority, and the commons in pursuance of writs issued in the name of the keepers of the liberty of England by authority of parliament; and that the said parliament sat till the 29th of December, full seven months after the Restoration; and enacted many laws, several of which are still in force. But this was for the necessity of the thing, which supercedes all law; for if they had not so met, it was morally impossible that the kingdom should have been settled in peace. And the first thing done after the king's return was, to pass an act declaring this to be a good parliament, notwithstanding the defect of the king's writ. So that as the royal prerogative was chiefly wounded by their so meeting, and as the king himself, who alone had a right to object, consented to wave the objection, this cannot be drawn into an example in prejudice of the rights of the crown. Besides, we should also remember, that it was at that time a great doubt among the lawyers, whether even this healing act made it a good parliament, and held by very many in the negative; though it seems to have been too nice a scruple. And yet, out of abundant caution, it was thought necessary to confirm its acts in the next parliament, by statute 13 Car. II. c. 7. & c. 14.

It is likewise true, at the time of the Revolution, A. D. 1688, the lords and commons by their own authority, and upon the summons of the prince of Orange (afterwards King William), met in a convention, and therein disposed of the crown and kingdom. But it must be remembered, that this assembling was upon a like principle of necessity as at the Restoration; that is, upon a full conviction that King James II. had abdicated the government, and that the throne was thereby vacant: which supposition of the individual members was confirmed by their concurrent resolution, when they actually came together. And, in such a case as the palpable vacancy of a throne, it follows, *ex necessitate rei*, that the form of the royal writs must be laid aside, otherwise no parliament can ever meet again. For let us put another possible case, and suppose, for the sake of argument, that the whole royal line should at any time fail, and become extinct, which would indisputably vacate the throne: in this situation it seems reasonable to presume, that the body of the nation, consisting of lords and commons, would have a right to meet and settle the government; otherwise there must be no government at all. And upon this and no other principle did the convention in 1688 assemble. The vacancy of the throne was precedent to their meeting without any royal summons, not a consequence of it. They did not assemble without writ, and then make the throne vacant; but, the throne being previously vacant by the king's abdication, they assembled without writ, as they must do if they assembled at all. Had the throne been full, their meeting would not have been regular; but, as it was really empty, such meeting became absolutely necessary. And accordingly it is declared by statute 1 W. & M. ft. 1. c. 1. that this convention was really the two houses of parliament, notwithstanding the want of writs or other defects of form. So that, notwithstanding these two capital exceptions, which were justifiable only on a principle of necessity (and each of which,

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Parliament which, by the way, induced a revolution in the government), the rule laid down is in general certain, that the king only can convoke a parliament.

8 The king is obliged to convoke parliament as often as circumstances require. And this, by the ancient statutes of the realm, he is bound to do every year, or oftener if need be. Not that he is, or ever was, obliged by these statutes to call a new parliament every year; but only to permit a parliament to sit annually for the redress of grievances, and dispatch of business, if need be. These last words are so loose and vague, that such of our monarchs as were inclined to govern without parliaments, neglected the convoking them, sometimes for a very considerable period, under pretence that there was no need of them. But, to remedy this, by the statute 16 Car. II. c. 1. it is enacted, that the sitting and holding of parliaments shall not be intermitted above three years at the most. And by the statute 1 W. & M. II. c. 2. it is declared to be one of the rights of the people, that for redress of all grievances, and for the amending, strengthening, and preserving, the laws, parliaments ought to be held frequently. And this indefinite frequency is again reduced to a certainty by statute 6 W. & M. c. 2. which enacts, as the statute of Charles II. has done before, that a new parliament shall be called within three years after the determination of the former.

9 The king, lords spiritual and temporal, and commons, make the parliament. II. *The constituent parts of a parliament are*, the king's majesty, sitting there in his royal political capacity, and the three estates of the realm; the lords spiritual, the lords temporal (who sit together with the king in one house), and the commons, who sit by themselves in another. And the king and these three estates together form the great corporation or body politic of the kingdom, of which the king is said to be *caput, principium, et finis*. For upon their coming together the king meets them, either in person or by representation; without which there can be no beginning of a parliament; and he also has alone the power of dissolving them.

10 The propriety and necessity of the king's being a branch of the legislature. It is highly necessary for preserving the balance of the constitution, that the executive power should be a branch, though not the whole, of the legislature. The total union of them, we have seen, would be productive of tyranny; the total disjunction of them, for the present, would in the end produce the same effects, by causing that union against which it seems to provide. The legislature would soon become tyrannical, by making continual encroachments, and gradually assuming to itself the rights of the executive power. Thus the long parliament of Charles I. while it acted in a constitutional manner, with the royal concurrence, redressed many heavy grievances and established many salutary laws. But when the two houses assumed the power of legislation, in exclusion of the royal authority, they soon after assumed likewise the reins of administration; and, in consequence of these united powers, overturned both church and state, and established a worse oppression than any they pretended to remedy. To hinder therefore any such encroachments, the king is himself a part of the parliament; and as this is the reason of his being so, very properly therefore the share of legislation which the constitution has placed in the crown, consists in the power of rejecting, rather than resolving; this being sufficient to answer the end proposed. For we may apply to the

royal negative, in this instance, what Cicero observes of the negative of the Roman tribunes, that the crown has not any power of doing wrong, but merely of preventing wrong from being done. The crown cannot begin of itself any alterations in the present established law; but it may approve or disapprove of the alterations suggested and consented to by the two houses. The legislature therefore cannot abridge the executive power of any rights which it now has by law, without its own consent; since the law must perpetually stand as it now does, unless all the powers will agree to alter it. And herein indeed consists the true excellence of the British government, that all the parts of it form a mutual check upon each other. In the legislature, the people are a check upon the nobility, and the nobility a check upon the people, by the mutual privilege of rejecting what the other has resolved; while the king is a check upon both, which preserves the executive power from encroachments. And this very executive power is again checked and kept within due bounds by the two houses, through the privilege they have of inquiring into, impeaching, and punishing the conduct (not indeed of the king, which would destroy his constitutional independence; but which is more beneficial to the public) of his evil and pernicious counsellors. Thus every branch of our civil polity supports and is supported, regulates and is regulated, by the rest: for the two houses naturally drawing in two directions of opposite interest, and the prerogative in another still different from them both, they mutually keep each other from exceeding their proper limits; while the whole is prevented from separation, and artificially connected together by the mixed nature of the crown, which is a part of the legislative, and the sole executive magistrate. Like three distinct powers in mechanics, they jointly impel the machine of government in a direction different from what either, acting by itself, would have done; but at the same time in a direction partaking of each, and formed out of all; a direction which constitutes the true line of the liberty and happiness of the community.

Having already considered these constituent parts of the sovereign power, or parliament, each in a separate view, under the articles KING, LORDS, and COMMONS, to which the reader is referred, we proceed,

11 II. To examine the laws and customs relating to The power of parliament, united together and considered as one aggregate body. The power and jurisdiction of parliament, says Sir Edward Coke, is so transcendent and absolute, that it cannot be confined either for causes or persons within any bounds. And of this high court he adds, it may be truly said, *Si antiquitatem spectes, est vetustissima; si dignitatem, est honoratissima; si jurisdictionem, est capacissima*. It hath sovereign and uncontrollable authority in making, confirming, enlarging, restraining, abrogating, repealing, reviving, and expounding of laws, concerning matters of all possible denominations, ecclesiastical or temporal, civil, military, maritime, or criminal: this being the place where that absolute despotic power, which must in all governments reside somewhere, is entrusted by the constitution of these kingdoms. All mischiefs and grievances, operations and remedies, that transcend the ordinary course of the laws, are within the reach of this

Parliament this extraordinary tribunal. It can regulate or new-model the succession to the crown; as was done in the reign of Henry VIII. and William III. It can alter the established religion of the land; as was done in a variety of instances in the reigns of king Henry VIII. and his three children. It can change and create afresh even the constitution of the kingdom and of parliaments themselves; as was done by the act of union, and the several statutes for triennial and septennial elections. It can, in short, do every thing that is not naturally impossible; and therefore some have not scrupled to call its power, by a figure rather too bold, the *omnipotence of parliament*. True it is, that what the parliament doth, no authority upon earth can undo. So that it is a matter most essential to the liberties of this kingdom, that such members be delegated to this important trust as are most eminent for their probity, their fortitude, and their knowledge; for it was a known apophthegm of the great lord-treasurer Burleigh, "That England could never be ruined but by a parliament;" and, as Sir Matthew Hale observes, this being the highest and greatest court, over which none other can have jurisdiction in the kingdom, if by any means a misgovernment should anyway fall upon it, the subjects of this kingdom are left without all manner of remedy. To the same purpose the president Montesquieu, though we trust too hastily, presages, that as Rome, Sparta, and Carthage, have lost their liberty and perished; so the constitution of England will in time lose its liberty, will perish: it will perish whenever the legislative power shall become more corrupt than the executive.

¹² **Mr Locke's** It must be owned, that Mr Locke, and other theoretical writers, have held, that "there remains still inherent in the people a supreme power to remove or alter the legislature, when they find the legislature act contrary to the trust reposed in them; for when such trust is abused, it is thereby forfeited, and devolves to those who gave it." But however just this conclusion may be in theory, we cannot adopt it, nor argue from it, under any dispensation of government at present actually existing. For this devolution of power, to the people at large, includes in it a dissolution of the whole form of government established by that people; reduces all the members to their original state of equality; and by annihilating the sovereign power, repeals all positive laws whatsoever before enacted. No human laws will therefore suppose a case, which at once must destroy all law, and compel men to build afresh upon a new foundation; nor will they make provision for so desperate an event, as must render all legal provisions ineffectual. So long therefore as the English constitution lasts, we may venture to affirm, that the power of parliament is absolute and without controul.

¹³ **The qualifications of members.** In order to prevent the mischiefs that might arise, by placing this extensive authority in hands that are either incapable or else improper to manage it, it is provided by the custom and law of parliament, that no one shall sit or vote in either house, unless he be 21 years of age. This is also expressly declared by statute 7 & 8 W. III. c. 25: with regard to the house of commons, doubts have arisen, from some contradictory adjudications, whether or not a minor was incapacitated from sitting in that house. It is also en-

N^o 259.

acted by statute 7 Jac. I. c. 6. that no member be permitted to enter the house of commons till he hath taken the oath of allegiance before the lord steward or his deputy: and by 30 Car. II. st. 2. and 1 Geo. I. c. 13. that no member shall vote or sit in either house, till he hath, in the presence of the house, taken the oaths of allegiance, supremacy, and abjuration, and subscribed and repeated the declaration against transubstantiation, and invocation of saints, and the sacrifice of the mass. Aliens, unless naturalized, were likewise by the law of parliament incapable to serve therein: and now it is enacted, by statute 12 & 13 W. III. c. 2. that no alien, even though he be naturalized, shall be capable of being a member of either house of parliament. And there are not only these standing incapacities; but if any person is made a peer by the king, or elected to serve in the house of commons by the people, yet may the respective houses, upon complaint of any crime in such person, and proof thereof, adjudge him disabled and incapable to sit as a member: and this by the law and custom of parliament.

¹⁴ For as every court of justice hath laws and customs for its direction, some the civil and canon, some the common law, others their own peculiar laws and customs; so the high court of parliament hath also its own peculiar law, called the *lex et consuetudo parliamenti*; a law which Sir Edward Coke observes is *ab omnibus quaerenda, a multis ignorata, a paucis cognita*. It will not therefore be expected that we should enter into the examination of this law with any degree of minuteness; since, as the same learned author assures us, it is much better to be learned out of the rolls of parliament and other records, and by precedents and continual experience, than can be expressed by any one man. It will be sufficient to observe, that the whole of the law and custom of parliament has its original from this one maxim, "That whatever matter arises concerning either house of parliament, ought to be examined, discussed, and adjudged in that house to which it relates, and not elsewhere." Hence, for instance, the lords will not suffer the commons to interfere in settling the election of a peer of Scotland; the commons will not allow the lords to judge of the election of a burgess; nor will either house permit the subordinate courts of law to examine the merits of either case. But the maxims upon which they proceed, together with the method of proceeding, rest entirely in the breast of the parliament itself; and are not defined and ascertained by any particular stated laws.

¹⁵ The privileges of parliament are likewise very large and indefinite; and therefore, when, in 31st Hen. VI. the house of lords propounded a question to the judges concerning them, the chief justice, Sir John Fortescue, in the name of his brethren, declared, "That they ought not to make answer to that question; for it hath not been used aforetime, that the justices should in anywise determine the privileges of the high court of parliament; for it is so high and mighty in its nature, that it may make law; and that which is law, it may make no law: and the determination and knowledge of that privilege belongs to the lords of parliament, and not to the justices." Privilege of parliament was principally established, in order to protect its members not only from being molested by their fellow-subjects, but also more especially from being oppressed

¹⁶ <sup>Some pri-
vileges a-
bolished.</sup> pressed by the power of the crown. If therefore all the privileges of parliament were once to be set down and ascertained, and no privilege to be allowed but what was so defined and determined, it were easy for the executive power to devise some new case, not within the line of privilege, and under pretence thereof to harass any refractory member, and violate the freedom of parliament. The dignity and independence of the two houses are therefore in great measure preserved by keeping their privileges indefinite. Some, however, of the more notorious privileges of the members of either house are, privilege of speech, of person, of their domestics, and of their lands and goods. As to the first, privilege of speech, it is declared by the statute 1 W. & M. ft. 2. c. 2. as one of the liberties of the people, "That the freedom of speech, and debates, and proceedings in parliament, ought not to be impeached or questioned in any court or place out of parliament." And this freedom of speech is particularly demanded of the king in person, by the speaker of the house of commons, at the opening of every new parliament. So likewise are the other privileges, of person, servants, lands, and goods; which are immunities as ancient as Edward the Confessor: in whose laws we find this precept, *Ad synodos venientibus, sive summoniti sint, sive per se quid agendum habuerint, sit summa pax*; and so too in the old Gothic constitutions, *Extenditur hac pax et securitas ad quatuordecim dies, convocato regni senatu*. This included formerly not only privilege from illegal violence, but also from legal arrests and seizures by process from the courts of law. And still to assault by violence a member of either house, or his menial servants, is a high contempt of parliament, and there punished with the utmost severity. It has likewise peculiar penalties annexed to it in the courts of law by the statutes 5 Hen. IV. c. 6. and 11 Hen. VI. c. 11. Neither can any member of either house be arrested and taken into custody without a breach of the privilege of parliament.

But all other privileges which derogate from the common law are now at an end, save only as to the freedom of the member's person; which in a peer (by the privilege of peerage) is for ever sacred and inviolable; and in a commoner (by the privilege of parliament) for forty days after every prorogation, and forty days before the next appointed meeting; which is now in effect as long as the parliament subsists, it seldom being prorogued for more than eighty days at a time. As to all other privileges which obstruct the ordinary course of justice, they were restrained by the statutes 12 W. III. c. 3. 2 & 3 Ann. c. 18. and 11 Geo. II. c. 24. and are now totally abolished by statute 10 G. III. c. 30.; which enacts, that any suit may at any time be brought against any peer or member of parliament, their servants, or any other person intitled to privilege of parliament; which shall not be impeached or delayed by pretence of any such privilege, except that the person of a member of the house of commons shall not thereby be subjected to any arrest or imprisonment. Likewise, for the benefit of commerce, it is provided by statute 4 Geo. III. c. 33. that any trader, having privilege of parliament, may be served with legal process for any just debt (to the amount of 100l.): and unless he makes satisfaction within two months, it shall be deemed an act of bankruptcy; and that com-

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missions of bankruptcy may be issued against such privileged traders in like manner as against any other.

¹⁷ <sup>Members
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rested; but
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&c.</sup> The only way by which courts of justice could anciently take cognizance of privilege of parliament was by writ of privilege, in the nature of a *superfedeas*, to deliver the party out of custody when arrested in a civil suit. For when a letter was written by the speaker to the judges, to stay proceedings against a privileged person, they rejected it as contrary to their oath of office. But since the statute 12 Will. III. c. 3. which enacts, that no privileged person shall be subject to arrest or imprisonment, it hath been held, that such arrest is irregular *ab initio*, and that the party may be discharged upon motion. It is to be observed, that there is no precedent of any such writ of privilege, but only in civil suits; and that the statute of 1 Jac. I. c. 13. and that of King William (which remedy some inconveniences arising from privilege of parliament), speak only of civil actions. And therefore the claim of privilege hath been usually guarded with an exception as to the case of indictable crimes; or, as it hath been frequently expressed, of treason, felony, and breach (or surety) of the peace. Whereby it seems to have been understood, that no privilege was allowable to the members, their families, or servants, in any crime whatsoever; for all crimes are treated by the law as being *contra pacem domini regis*. And instances have not been wanting, wherein privileged persons have been convicted of misdemeanors, and committed, or prosecuted to outlawry, even in the middle of a session; which proceeding has afterwards received the sanction and approbation of parliament. To which may be added, that a few years ago, the case of writing and publishing seditious libels was resolved by both houses not to be intitled to privilege; and that the reasons upon which that case proceeded, extended equally to every indictable offence. So that the chief, if not the only, privilege of parliament, in such cases, seems to be the right of receiving immediate information of the imprisonment or detention of any member, with the reason for which he is detained: a practice that is daily used upon the slightest military accusations, preparatory to a trial by a court-martial; and which is recognized by the several temporary statutes for suspending the *habeas corpus* act: whereby it is provided, that no member of either house shall be detained, till the matter of which he stands suspected be first communicated to the house of which he is a member, and the consent of the said house obtained for his commitment or detaining. But yet the usage has uniformly been, ever since the Revolution, that the communication has been subsequent to the arrest.

These are the general heads of the laws and customs relating to parliament, considered as one aggregate body. The laws and customs relating to each branch in particular being explained under the articles already referred to, *viz.* KING, LORDS, and COMMONS, we should proceed, IV. To the method of making laws; which is much the same in both houses. But for this, too, we have to refer the reader to the article BILL; and shall only observe in this place, that, for dispatch of business, each house of parliament has its speaker. The speaker of the house of lords, whose office it is to preside there, and manage the formality of business, is the lord chancellor, or keeper of the king's great seal, or any other

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appointed

¹⁸ <sup>Of the lord
chancellor
and speaker
of the house
of com-
mons.</sup>

Parliament appointed by the king's commission: and if none be so appointed, the house of lords (it is said) may elect. The speaker of the house of commons is chosen by the house; but must be approved by the king. And herein the usage of the two houses differs, that the speaker of the house of commons cannot give his opinion or argue any question in the house; but the speaker of the house of lords, if a lord of parliament, may. In each house the act of the majority binds the whole; and this majority is declared by votes openly and publicly given; not, as at Venice, and many other senatorial assemblies, privately, or by ballot. This latter method may be serviceable, to prevent intrigues and unconstitutional combinations; but is impossible to be practised with us, at least in the house of commons, where every member's conduct is subject to the future censure of his constituents, and therefore should be openly submitted to their inspection.

19
Of the adjournment of parliament.

V. There remains only, in the last place, to add a word or two concerning the manner in which parliaments may be *adjourned*, *prorogued*, or *dissolved*.

An *adjournment* is no more than a continuance of the session from one day to another; as the word itself signifies; and this is done by the authority of each house separately every day; and sometimes for a fortnight or a month together, as at Christmas or Easter, or upon other particular occasions. But the adjournment of one house is no adjournment of the other. It hath also been usual, when his Majesty hath signified his pleasure that both or either of the houses should adjourn themselves to a certain day, to obey the king's pleasure so signified, and to adjourn accordingly. Otherwise, besides the indecorum of a refusal, a prorogation would assuredly follow; which would often be very inconvenient to both public and private business. For prorogation puts an end to the session; and then such bills as are only begun, and not perfected, must be resumed *de novo* (if at all) in a subsequent session; whereas, after an adjournment, all things continue in the same state as at the time of the adjournment made, and may be proceeded on without any fresh commencement.

20
Of prorogation of parliament.

A *prorogation* is the continuance of the parliament from one session to another; as an adjournment is a continuation of the session from day to day. This is done by the royal authority, expressed either by the lord chancellor in his Majesty's presence, or by commission from the crown, or frequently by proclamation. Both houses are necessarily prorogued at the same time; it not being a prorogation of the house of lords or commons, but of the parliament. The session is never understood to be at an end until a prorogation; though, unless some act be passed, or some judgment given in parliament, it is in truth no session at all. And formerly the usage was, for the king to give the royal assent to all such bills as he approved at the end of every session, and then to prorogue the parliament, though sometimes only for a day or two; after which all business then depending in the houses was to be begun again. Which custom obtained so strongly, that it once became a question, Whether giving the royal assent to a single bill did not of course put an end to the session? And though it was then resolved in the negative, yet the notion was so deeply rooted, that the statute 1 Car. I. c. 7. was passed to declare, that the king's

assent to that and some other acts should not put an end to the session; and even so late as the reign of Charles II. we find a proviso frequently tacked to a bill, that his Majesty's assent thereto should not determine the session of parliament. But it now seems to be allowed, that a prorogation must be expressly made, in order to determine the session. And if at the time of an actual rebellion, or imminent danger of invasion, the parliament shall be separated by adjournment or prorogation, the king is empowered to call them together by proclamation, with 14 days notice of the time appointed for their reassembling.

A *dissolution* is the civil death of the parliament; and this may be effected three ways: 1. By the king's will, expressed either in person or by representation. For as the king has the sole right of convening the parliament, so also it is a branch of the royal prerogative, that he may (whenever he pleases) prorogue the parliament for a time, or put a final period to its existence. If nothing had a right to prorogue or dissolve a parliament but itself, it might happen to become perpetual. And this would be extremely dangerous, if at any time it should attempt to encroach upon the executive power; as was fatally experienced by the unfortunate king Charles I.; who, having unadvisedly passed an act to continue the parliament then in being till such time as it should please to dissolve itself, at last fell a sacrifice to that inordinate power which he himself had consented to give them. It is therefore extremely necessary that the crown should be empowered to regulate the duration of these assemblies, under the limitations which the English constitution has prescribed: so that, on the one hand, they may frequently and regularly come together for the dispatch of business and redress of grievances; and may not, on the other, even with the consent of the crown, be continued to an inconvenient or unconstitutional length.

2. A parliament may be dissolved by the demise of the crown. This dissolution formerly happened immediately upon the death of the reigning sovereign: for he being considered in law as the head of the parliament, (*caput, principium, et finis*), that failing, the whole body was held to be extinct. But the calling a new parliament immediately on the inauguration of the successor being found inconvenient, and dangers being apprehended from having no parliament in being in case of a disputed succession, it was enacted by the statutes 7 & 8 W. III. c. 15. and 6 Ann. c. 7. that the parliament in being shall continue for six months after the death of any king or queen, unless sooner prorogued or dissolved by the successor; that if the parliament be, at the time of the king's death, separated by adjournment or prorogation, it shall notwithstanding assemble immediately: and that if no parliament is then in being, the members of the last parliament shall assemble, and be again a parliament.

3. Lastly, a parliament may be dissolved or expire by length of time. For if either the legislative body were perpetual, or might last for the life of the prince who convened them as formerly, and were so to be supplied, by occasionally filling the vacancies with new representatives; in these cases, if it were once corrupted, the evil would be past all remedy; but when different bodies succeed each other, if the people see cause to disapprove of the present, they may rectify its faults in

21
Parliament is dissolved by the king's will.

22
Or in consequence of his death.

23
Or thro' length of time.

Parliament in the next. A legislative assembly also, which is sure to be separated again, (whereby its members will themselves become private men, and subject to the full extent of the laws which they have enacted for others), will think themselves bound, in interest as well as duty, to make only such laws as are good. The utmost extent of time that the same parliament was allowed to sit, by the statute 6 W. & M. c. 3. was *three* years: after the expiration of which, reckoning from the return of the first summons, the parliament was to have no longer continuance. But by the statute 1 Geo. I. st. 2. c. 38. (in order, professedly to prevent the great and continued expences of frequent elections, and the violent heats and animosities consequent thereupon, and for the peace and security of the government then just recovering from the late rebellion), this term was prolonged to *seven* years; and, what alone is an instance of the vast authority of parliament, the very same house that was chosen for three years, enacted its own continuance for seven. So that, as our constitution now stands, the parliament must expire, or die a natural death, at the end of every seventh year, if not sooner dissolved by the royal prerogative.

We shall conclude this article with an account of some general forms not taken notice of under any of the above heads.

24
General forms observed in the house of peers;

In the house of lords, the princes of the blood sit by themselves on the sides of the throne; at the wall, on the king's right hand, the two archbishops sit by themselves on a form. Below them, the bishops of London, Durham, and Winchester, and all the other bishops, sit according to the priority of their consecration. On the king's left hand the lord treasurer, lord president, and lord privy-seal, sit upon forms above all dukes, except the royal blood; then the dukes, marquises, and earls, according to their creation. Across the room are wool-sacks, continued from an ancient custom; and the chancellor, or keeper, being of course the speaker of the house of lords, sits on the first wool-sack before the throne, with the great seal or mace lying by him; below these are forms for the viscounts and barons. On the other wool-sacks are seated the judges, masters in chancery, and king's council, who are only to give their advice in points of law: but they all stand up till the king gives them leave to sit.

25
In the house of commons.

The commons sit promiscuously; only the speaker has a chair at the upper end of the house, and the clerk and his assistant sit at a table near him.

When a member of the house of commons speaks, he stands up uncovered, and directs his speech to the speaker only. If what he says be answered by another, he is not allowed to reply the same day, unless personal reflections have been cast upon him: but when the commons, in order to have a greater freedom of debate, have resolved themselves into a committee of the whole house, every member may speak to a question as often as he thinks necessary. In the house of lords they vote, beginning at the puisne, or lowest baron, and so up orderly to the highest, every one answering, *Content* or *Not content*. In the house of commons they vote by *yeas* and *nays*; and if it be dubious which are the greater number, the house divides. If he question be about bringing any thing into the house, the *yeas* go out; but if it be about any thing the house

already has, the *nays* go out. In all divisions the speaker appoints four tellers, two of each opinion. In a committee of the whole house, they divide by changing sides, the *yeas* taking the right and the *nays* the left of the chair; and then there are but two tellers. If a bill pass one house, and the other demur to it, a conference is demanded in the painted chamber, where certain members are deputed from each house; and here the lords sit covered, and the commons stand bare, and debate the case. If they disagree, the affair is null; but if they agree, this, with the other bills that have passed both houses, is brought down to the king in the house of lords, who comes thither clothed in his royal robes; before him the clerk of the parliament reads the title of each bill, and as he reads, the clerk of the crown pronounces the royal assent or dissent. If it be a public bill, the royal assent is given in these words, *Le roy le veut*, "The king will have it so;" if private, *Soit fait comme il est désiré*, "Let the request be complied with;" if the king refuses the bill, the answer is, *Le roy s'aviserà*, "The king will think of it;" and if it be a money-bill, the answer is, *Le roy remercie ses loyaux sujets, accepte leur benevolence, & aussi le veut*; "The king thanks his loyal subjects, accepts their benevolence, and therefore grants his consent."

26
Manner of expressing the royal assent or dissent to bills.

High Court of PARLIAMENT, is the supreme court in the kingdom, not only for the making, but also for the execution, of laws; by the trial of great and enormous offenders, whether lords or commoners, in the method of parliamentary impeachment. As for acts of parliament to attain particular persons of treason or felony, or to inflict pains and penalties, beyond or contrary to the common law, to serve a special purpose, we speak not of them; being to all intents and purposes new laws, made *pro re nata*, and by no means an execution of such as are already in being. But an impeachment before the lords by the commons of Great Britain, in parliament, is a prosecution of the already known and established law, and has been frequently put in practice; being a presentment to the most high and supreme court of criminal jurisdiction by the most solemn grand inquest of the whole kingdom. A commoner cannot, however, be impeached before the lords for any capital offence, but only for high misdemeanors; a peer may be impeached for any crime. And they usually (in case of an impeachment of a peer for treason) address the crown to appoint a lord high steward, for the greater dignity and regularity of their proceedings; which high steward was formerly elected by the peers themselves, though he was generally commissioned by the king; but it hath of late years been strenuously maintained, that the appointment of an high steward in such cases is not indispensably necessary, but that the house may proceed without one. The articles of impeachment are a kind of bills of indictment, found by the house of commons, and afterwards tried by the lords; who are in cases of misdemeanors considered not only as their own peers, but as the peers of the whole nation. This is a custom derived to us from the constitution of the ancient Germans; who in their great councils sometimes tried capital accusations relating to the public: *Licet apud concilium accusare quoque, et discrimen capitis intendere*. And it has a peculiar propriety in the English constitution; which has much improved upon

Parliament. the ancient model imported hither from the continent. For though in general the union of the legislative and judicial powers ought to be most carefully avoided, yet it may happen that a subject, intrusted with the administration of public affairs, may infringe the rights of the people, and be guilty of such crimes as the ordinary magistrate either dares not or cannot punish. Of these the representatives of the people, or house of commons, cannot properly judge; because their constituents are the parties injured, and can therefore only impeach. But before what court shall this impeachment be tried? Not before the ordinary tribunals, which would naturally be swayed by the authority of so powerful an accuser. Reason therefore will suggest, that this branch of the legislature, which represents the people, must bring its charge before the other branch, which consists of the nobility, who have neither the same interests, nor the same passions, as popular assemblies. This is a vast superiority which the constitution of this island enjoys over those of the Grecian or Roman republics; where the people were at the same time both judges and accusers. It is proper that the nobility should judge, to insure justice to the accused; as it is proper that the people should accuse, to insure justice to the commonwealth. And therefore, among other extraordinary circumstances attending the authority of this court, there is one of a very singular nature, which was insisted on by the house of commons in the case of the earl of Danby in the reign of Charles II. and is now enacted by statute 12 & 13 W. III. c. 2. that no pardon under the great seal shall be pleadable to an impeachment by the commons of Great Britain in parliament.

Such is the nature of a British parliament, and in theory at least we should presume it were nearly perfect; but some of our fellow-countrymen, more zealous perhaps than wise, see prodigious faults in it, such indeed as they think must inevitably prove fatal. The consequence of this persuasion has been a loud and incessant call for parliamentary reform. That abuses ought to be reformed, is certain; and that few institutions are so perfect as not to need amendment, is a fact equally indisputable. We shall even suppose that there are many abuses in our parliament which would require to be amended; but, granting all this, and something more if it were necessary, we would recommend in the mean time to the serious consideration of those who call themselves the *Friends of the People*, whose sincerity in their professions it would be impolite to question, the example of France, and that they would allow it to be a warning to Britain. France wanted reform indeed, and that which was first proposed had the countenance of the coolest and the best of men; but the consequences have been dreadful; and if ever a free and stable government take place in it, which we sincerely wish may be soon, it will have been purchased at an immense price, by enormities which will disgrace it whilst the remembrance of them lasts.

The former *PARLIAMENTS of France* were sovereign courts established by the king, finally to determine all disputes between particular persons, and to pronounce on appeals from sentences given by inferior judges.—There were ten of these parliaments in France, of which that of Paris was the chief, its privileges and jurisdiction being of the greatest extent. It consisted

of eight chambers: the grand chamber, where causes of audience were pleaded; the chamber of written law; the chamber of counsel; the Tournelle criminelle, for judging criminal affairs; the Tournelle civile, in aid of the grand chamber; and three chambers of inquests, where processes were adjudged in writing: besides these, there was also the chamber of vacations, and those of requests. In 1771 the king thought fit to branch the parliament of Paris into six different parliaments, under the denomination of superior courts, each parliament having similar jurisdiction. Under their second race of kings, this parliament, like that of England, was the king's council; it gave audience to ambassadors, and consulted of the affairs of war and government. The king, like ours, at that time presided in them, without being at all master of their resolutions. But in after times their authority was abridged; as the kings reserved the decision of the grand affairs of the public to their own councils; leaving none but private ones to the parliaments. The parliament of Paris also enjoyed the privileges of verifying and registering the king's arrets or edicts, without which those edicts were of little or no value.

PARLIAMENT of Sweden, consists of four estates, with the king at their head. These estates are, 1. The nobility and representatives of the gentry; with whom the colonels, lieutenant colonels, majors, and captains of every regiment, sit and vote. 2. The clergy; one of which body is elected from every rural deanery of ten parishes; who, with the bishops and superintendents, amount to about 200. 3. The burghers, elected by the magistrates and council of every corporation as their representatives, of whom there are four for Stockholm, and two for every other town, amounting in the whole to about 150. 4. The peasants, chosen by the peasants out of every district; who choose one of their own rank, and not a gentleman, to represent them: these amount to about 250.

All these generally meet at Stockholm: and after the state-affairs have been represented to them from the throne, they separate, and sit in four several chambers or houses, in each of which affairs are carried on by majority of votes; and every chamber has a negative in the passing any law.

PARMA, an ancient, rich, populous, and handsome town of Italy, capital of the duchy of the same name, with a citadel, a bishop's see, and an university. It has a magnificent cathedral, and the largest opera-house in Europe, which has seats for 8000 people; but as it required a vast number of candles, which occasioned great expence, they have contrived another which has room for 2000 spectators. The dome and the church of St John are painted by the famous Corregio, who was a native of this place. Don Carlos, king of the two Sicilies, carried away the library to Naples, which contained 18,000 volumes, and a very valuable cabinet of curiosities, as also the rich collection of medals. The citadel, which is very near the city, is built in the same taste as that at Antwerp. In 1734 there was a bloody battle fought here; and in 1741, by the treaty of Aix-la-Chapelle, the duchies of Parma, Placentia, and Guastalla, were given to Don Philip, brother to Don Carlos above-mentioned. It is 30 miles south-east of Cremona, and 30 south-east of Milan. E. Long. 10. 51. N. Lat. 44. 50. 8.

PARMA,

Parma
||
Parmigiano.

PARMA, the duchy of a province of Italy, bounded on the north by the Po; on the north-east by the Mantuan; on the east by the duchy of Modena; on the south by Tuscany; and on the west by the duchy of Placentia. The air is very wholesome, on which account the inhabitants live to a great age. The soil is very fertile, in corn, wine, oil, and hemp; the pastures feed a great number of cattle, and the cheese is in very high esteem. Here are considerable mines of copper and silver, and plenty of truffles, which many are very fond of.

PARMESAN CHEESE, a sort of cheese much esteemed among the Italians; so named from the duchy of Parma where it is made, and whence it is conveyed to various parts of Europe.

The excellent pasture-grounds of this country are watered by the Po; and the cows from whose milk this cheese is made yield a great quantity of it. Of this cheese there are three sorts; the *fromaggio di forma*, about two palms in diameter, and seven or eight inches thick; and the *fromaggio di ribiole* and *di ribolini*, which are not so large. This cheese is of a saffron-colour; and the best is kept three or four years. See CHEESE.

PARMIGIANO, a celebrated painter, whose true name was Francesco Mazzuoli; but he received the former from the city of Parma, where he was born, in 1504. He was brought up under his two uncles, and was an eminent painter when but 16 years of age. He was famous all over Italy at 19; and at 23 performed such wonders, that when the general of the emperor Charles V. took Rome by storm, some of the common soldiers having, in sacking the town, broke into his apartments, found him intent upon his work, and were instantly so struck with the beauty of his pieces, that instead of involving him in the plunder and destruction in which they were then employed, they resolved to protect him from all manner of violence; which they actually performed. His works are distinguished by the beauty of the colouring, the invention, and drawing. His figures are spirited and graceful, particularly with respect to the choice of attitude, and in their dresses. He also excelled in music, in which he much delighted.

In large compositions Parmigiano did not always reach an high degree of excellence; but in his holy families, and other similar subjects, the gracefulness of his heads, and the elegance of his attitudes, are peculiarly delightful. For the celebrity of his name he seems to be chiefly indebted to his numerous drawings and etchings; for his life being short, and a great part of it consumed in the idle study of alchemy, in pursuit of the philosopher's stone, and in the seducing avocations of music and gambling, there was but little time left for application to the laborious part of his business. His paintings in oil are few in number, and held in high esteem, as are also his drawings and etchings; good impressions of these last being very rarely to be found. He was the first that practised the art of etching in Italy; and probably he did not at first know that it had been for some years practised in Germany. When he set out for Rome, he was advised to take some of his pictures with him, as a means of getting himself introduced into the acquaintance of the nobility and artists in that celebrated city. One of them is

mentioned by his biographers as a masterpiece. It was his own portrait painted upon a piece of wood of a convex form, in imitation of a convex mirror. The surface is said to have been so wonderfully executed, that it had the appearance of real glass, and the head, as well as every part of the furniture of the chamber in which he was supposed to sit, were so artfully managed, that the whole formed a very complete piece of deception. At Rome he was employed by pope Clement VII. who was highly pleased with his performances, and rewarded him liberally. A circumcision which he painted for him was particularly esteemed as a capital work. In it Parmigiano was successful in introducing a variety of lights, without destroying the general harmony. When Charles V. came to Bologna to be crowned emperor of the Romans, Parmigiano failed not to be present at that singular ceremony; and so accurately marked the countenance of the emperor, that at his return home, he was enabled from memory to make out a surprising likeness. In the same piece he introduced the figure of Fame placing a crown of laurel on the head of the emperor, whilst a young Hercules presented him with a globe of the world. Before it was quite finished, the painter and his piece were introduced to Charles by the Pope, but to little purpose; for the emperor left Bologna a few days after, without ordering him any recompence for his labour. In the church of Madona della Stercata at Parma are still to be seen several of the works of this artist; among which one of Sybils, and two others of Moses, and of Adam and Eve, are much admired. So also is a Dead Christ, with the Virgin in sorrow, in the church of the Dominicans at Cremona. In the Houghton collection of pictures, now in possession of the empress of Russia, is one of his best pictures, representing Christ laid in the sepulchre, for which he is said to have been knighted by the duke of Parma. His principal works are at Parma, where he died poor in 1540.

PARNASSIA, grass of Parnassus, in botany; a genus of the tetragynia order, belonging to the pentandria class of plants. The calyx is quinquepartite; there are five petals, and as many nectaria, heart-shaped, and ciliated with globular tops; the capsule quadri-valved. There is but one species, having a stalk about a foot high, angular, and often a little twisted, bearing a single white flower at top. The flowers are very beautifully streaked with yellow; so that though it is a common plant, growing naturally in moist pastures, it is frequently admitted into gardens.

PARNASSUS (Strabo, Pindar, Virgil), a mountain of Phocis, near Delphi, and the mounts Cithæron and Helicon, with two tops (Ovid, Lucan); the one called *Cirrhæa*, sacred to Apollo; and the other *Nisa*, sacred to Bacchus, (Juvenal). It was covered with bay trees, (Virgil); and originally called *Larnassus*, from Deucalion's larnax or ark, thither conveyed by the flood, (Stephanus, Scholiast on Apollonius); after the flood, *Parnassus*; from Har Nahas, changing the *h* into *p*, the hill of divination or augury (Peucerus); the oracle of Delphi standing at its foot.

Chandler *, who visited it, thus describes it:—* *Travels*. "Parnassus was the western boundary of Phocis, and in Greece stretching northward from about Delphi toward the Cætan.

Parmigiano
||
Parnassus.

Parnassus. Cætan mountains, separated the western Locri from those who possessed the sea-coast before Eubœa. It was a place of refuge to the Delphians in times of danger. In the deluge, which happened under Deucalion, the natives were saved on it by following the cry of wolves. On the invasion by Xerxes, some transported their families over to Achaia, but many concealed them in the mountain, and in Corycium, a grotto of the Nymphs. All Parnassus was renowned for sanctity; but Corycium was the most noted among the hallowed caves and places. 'On the way to the summits of Parnassus, says Pausanias, as much as 60 stadia beyond Delphi, is a brazen image; and from thence the ascent to Corycium is easier for a man on foot, and for mules and horses. Of all the caves in which I have been, this appeared to me the best worth seeing. On the coasts, and by the sea-side, are more than can be numbered; but some are very famous both in Greece and in other countries. The Corycian cave exceeds in magnitude those I have mentioned, and for the most part may be passed through without a light. It is sufficiently high; and has water, some springing up, and yet more from the roof, which petrifies; so that the bottom of the whole cave is covered with sparry icicles. The inhabitants of Parnassus esteem it sacred to the Corycian Nymphs, and particularly to Pan.—From the cave to reach the summits of the mountain is difficult even to a man on foot. The summits are above the clouds, and the women called *Thyades* madden on them in the rites of Bacchus and Apollo.' Their frantic orgies were performed yearly. Wheler and his company ascended Parnassus from Delphi, some on horses, by a track between the Stadium and the clefts of the mountain. Stairs were cut in the rock, with a strait channel, perhaps a water-duct.—In a long hour, after many traverses, they gained the top, and entering a plain turned to the right, towards the summits of Castalia, which are divided by deep precipices. From this eminence they had a fine prospect of the gulf of Corinth, and of the coast; mount Cirphis appearing beneath them as a plain, bounded on the east by the bay of Asprospitia, and on the west by that of Salona. A few shepherds had huts there. They returned to the way which they had quitted, and crossed a hill covered with pines and snow. On their left was a lake, and beyond it a peak, exceedingly high, white with snow. They travelled to the foot of it through a valley, four or five miles in compass; and rested by a plentiful fountain called *Drosonigo*, the stream boiling up a foot in diameter, and nearly as much above the surface of the ground. It runs into the lake, which is about a quarter of a mile distant to the south-east. They did not discover Corycium, or proceed farther on, but keeping the lake on their right, came again to the brink of the mountain, and descended by a deep and dangerous track to Racovi, a village four or five miles eastward from Delphi. It was the opinion of Wheler, that no mountain in Greece was higher than Parnassus; that it was not inferior to mount Cenis among the Alps; and that, if detached, it would be seen at a greater distance than even mount Athos. The summits are perpetually increasing, every new fall of snow adding to the perennial heap, while the sun has power only to thaw the superficies. Castalis Pleiæus and innumerable springs are fed, some invisibly,

from the lakes and reservoirs, which, without these drains and subterraneous vents, would swell, especially after heavy rain and the melting of snow, so as to fill the valleys, and run over the tops of the rocks down upon Delphi, spreading wide an inundation, similar, as has been surmised, to the Deucalionian deluge."

PARNELL (Dr Thomas), a very ingenious divine and poet in the early part of this century. He was archdeacon of Clogher, and the intimate friend of Mr Pope; who published his works, with an elegant copy of recommendatory verses prefixed. He died in 1718, aged 39.

Johnson * says, "The Life of Dr Parnell is a task * *Lives of the Poets.* which I should very willingly decline, since it has been lately written by Goldsmith, a man of such variety of powers, and such felicity of performance, that he always seemed to do best that which he was doing; a man who had the art of being minute without tediousness, and general without confusion; whose language was copious without exuberance, exact without constraint, and easy without weakness.

"What such an author has told, who would tell again? I have made an extract from his larger narrative; and shall have this gratification from my attempt, that it gives me an opportunity of paying due tribute to the memory of a departed genius.

* *To γὰρ γέρας ἐστὶ δαμόνιον.*

"The general character of Parnell is not great extent of comprehension, or fertility of mind. Of the little that appears still less is his own. His praise must be derived from the easy sweetness of his diction: in his verses there is more happiness than pains; he is sprightly without effort, and always delights though he never ravishes; every thing is proper, yet every thing seems casual. If there is some appearance of elaboration in the Hermit, the narrative, as it is less airy, is less pleasing. Of his other compositions, it is impossible to say whether they are the productions of Nature so excellent as not to want the help of Art, or of Art so refined as to resemble Nature."

PARODY, a popular maxim, adage, or proverb.

PARODY, is also a poetical pleasantry, consisting in applying the verses written on one subject, by way of ridicule, to another; or in turning a serious work into a burlesque, by affecting to observe as near as possible the same rhimes, words, and cadences.

The parody was first set on foot by the Greeks; from whom we borrow the name. It comes near to what some of our late writers call *travesty*. Others have more accurately distinguished between a parody and burlesque; and they observe, that the change of a single word may parody a verse; or of a single letter a word. Thus, in the last case, Cato exposed the inconstant disposition of Marcus Fulvius Nobilior, by changing Nobilior into Mobilior. Another kind of parody consists in the mere application of some known verse, or part of a verse of a writer, without making any change in it, with a view to expose it. A fourth instance is that of writing verses in the taste and style of authors little approved. The rules of parody regard the choice of a subject, and the manner of treating it. The subject should be a known and celebrated work: as to the manner, it should be by an exact imitation, and an intermixture of good natural pleasantry.

Parole
||
Paros

PAROLE, in a military sense, the promise made by a prisoner of war, when he has leave to go anywhere, of returning at a time appointed, if not exchanged.

PAROLE, means also a word given out every day in orders by the commanding officer, both in camp and garrison, in order to know friends from enemies.

PARONOMASIA, in rhetoric, a pun; or a figure whereby words nearly alike in sound, but of very different meanings, are affectedly or designedly used. See ORATORY, n° 76.

PARONYCHIA, the **WHITLOW**, in surgery, is an abscess at the end of the fingers. According as it is situated more or less deep, it is differently denominated, and divided into species.

It begins with a slow heavy pain, attended with a slight pulsation, without swelling, redness, or heat: but soon the pain, heat, and throbbing, are intolerable; the part grows large and red, the adjoining fingers and the whole hand swell up; in some cases, a kind of red and inflated streak may be observed, which beginning at the affected part, is continued almost to the elbow; nor is it unusual for the patient to complain of a very sharp pain under the shoulder, and sometimes the whole arm is excessively inflamed and swelled; the patient cannot sleep, the fever, &c. increasing; and sometimes delirium or convulsions follow.

1. When it is seated in the skin or fat, in the back or the fore part of the finger, or under or near the nail, the pain is severe, but ends well. 2. When the periosteum is inflamed or corroded, the pain is tormenting. 3. When the nervous coats of the flexor tendons of the fingers or nerves near them are seized, the worst symptoms attend. If the first kind suppurates, it must be opened, and treated as abscesses in general; but the best method of treating the other two species is, on the first, or at furthest the second day, to cut the part where the pain is seated quite to the bone: if this operation is longer deferred, a suppuration will come on; in which case suppuration should be speedily promoted, and as early a discharge given to the matter as possible. As the pain is so considerable as to occasion a fever, and sometimes convulsions, the tinct. theb. may be added to the suppurating applications, and also given in a draught at bed-time. The second species proves very troublesome, and sometimes ends in a caries of the subjacent bone. The third species is very tedious in the cure, and usually the phalanx on which it is seated is destroyed.

PAROS (anc. geog.), an island of the *Ægean* sea, one of the *Cyclades*, with a strong cognominal town, 38 miles distant from *Delos* (Pliny, Nepos). Anciently

called *Paſye* and *Minoa* (Pliny); also *Demetrias*, *Zacynthus*, *Hyria*, *Hyleessa*, and *Cabarnis* (Nicanor). The country of *Archilochus* the Iambic poet (Strabo). An island famous for its white marble (Virgil, Horace, Ovid), called *lychnites*, because dug with lamps (Pliny). The name of *Cabarnis* is borrowed, according to *Stephanus*, from one *Cabarnus*, who first informed *Ceres* of the rape of her daughter *Proserpine*; or, according to *Hesychius*, from the *Cabarni*, the priests of *Ceres* being so called by the inhabitants of this island. The name of *Minoa* is borrowed from *Minos* king of *Crete*, who subdued this as he did most of the other islands of the *Ægean* sea. It was called *Paros*, which name it retains to this day, from *Paros* the son of *Parrhasius*, or, as *Stephanus* will have it, of *Jason* the *Argonaut*. *Paros*, according to *Pliny's* computation, is distant from *Naxos* seven miles and a half, and 28 from *Delos*. Some of the modern travellers will have it to be 80, others only 50 miles in compass. *Pliny* says it is half as large as *Naxos*, that is, between 36 and 37 miles in compass. It was a rich and powerful island, being termed the most wealthy and happy of the *Cyclades*, and by *Cornelius Nepos* an island elated with its riches. The city of *Paros*, the metropolis, is styled by *Stephanus* a potent city, and one of the largest in the *Archipelago*: the present city of *Paros*, now *Parichia*, is supposed to have been built upon its ruins, the country abounding with valuable monuments of antiquity. The very walls of the present city are built with columns, architraves, pedestals, mingled with pieces of ancient marble of a surprising magnitude, which were once employed in more noble edifices. *Paros* was indeed formerly famous for its marble, which was of an extraordinary whiteness, and in such request among the ancients that the best statuaries used no other (A). The island is provided with several capacious and safe harbours, and was anciently much resorted to by traders. It was, according to *Thucydides*, originally peopled by the *Phœnicians*, who were the first masters of the sea. Afterwards the *Carians* settled here, as we are told by *Thucydides* and *Diodorus*. But these two authors differ as to the time when the *Carians* came first into the island; for *Thucydides* tells us, that the *Carians* were driven out by the *Cretans* under the conduct of *Minos*; and *Diodorus* writes, that the *Carians* did not settle here till after the *Trojan* war, when they found the *Cretans* in possession of the island. *Stephanus* thinks that the *Cretans*, mixed with some *Arcadians*, were the only people that ever possessed this island. *Minos* himself, if we believe *Pliny*, resided some time in the island of *Paros*, and received here the melancholy news of the death of his son *Androgeus*, who was killed in *Attica* after

(A) *Sutherland* says, "that while its marble quarries continued to be worked, *Paros* was one of the most flourishing of the *Cyclades*; but on the decline of the eastern empire they were entirely neglected, and are now converted into caves, in which the shepherds shelter their flocks. We have been in several of these subterraneous folds, which put me much in mind of *Homer's* description of *Polyphemus*. The common walls are almost entirely composed of marble; and in examining a very small part of one, we found several pieces of cornice and basso-relievo. Several fine blocks of marble (fragments of columns) are lying close to the water's edge; and seem to have been brought there by travellers, who, for want of a proper purchase to get them on board, have not been able to carry them farther."

Paros
||
Parr.

after he had distinguished himself at the public games. We find the inhabitants of this island chosen from among all the Greeks by the Milesians to compose the differences which had for two generations rent that unhappy state into parties and factions. They acquitted themselves with great prudence, and reformed the government. They assisted Darius in his expedition against Greece with a considerable squadron; but after the victory obtained by Miltiades at Marathon, they were reduced to great straits by that general. However, after blocking up the city for 26 days, he was obliged to quit the enterprize, and return to Athens with disgrace. Upon his departure, the Parians were informed that Timo, a priestess of the national gods, and then his prisoner, had advised him to perform some secret ceremony in the temple of Ceres, near the city; assuring him that he would thereby gain the place. Upon this information they sent deputies to consult the oracle of Delphi, whether they should punish her with death, for endeavouring to betray the city to the enemy, and discovering the sacred mysteries to Miltiades. The Pythian answered, that Timo was not the adviser; but that the gods, having resolved to destroy Miltiades, had only made her the instrument of his death. After the battle of Salamis, Themistocles subjected Paros and most of the other neighbouring islands to Athens, exacting large sums from them by way of punishment for having favoured the Persians. It appears from the famous monument of Adulas, which Cosmos of Egypt has described with great exactness, that Paros and the other Cyclades were once subject to the Ptolemies of Egypt. However, Paros fell again under the power of the Athenians, who continued masters of it till they were driven out by Mithridates the Great. But that prince being obliged to yield to Sylla, to Lucullus, and to Pompey, this and the other islands of the Archipelago submitted to the Romans, who reduced them to a province with Lydia, Phrygia, and Caria.

Mr Sutherland, who lately visited Paros, says, that "the water in it is excellent; and as that which we got at Messina has been complained of, as being too hard to make proper pease-soup for the people, all the casks are ordered to be emptied and refilled. The Russians made this place their grand arsenal; their powder magazines, and several other buildings, are still standing; and the island is considerably indebted to them for improving the convenience for water, and for the trade which the cash they expended introduced among the inhabitants."

PAROTIDES, in anatomy. See there, n° 128.

PAROXYSM, in medicine, the severe fit of a disease, under which it grows higher or exasperated; as of the gout, &c.

PARR (Catharine), was the eldest daughter of Sir Thomas Parr of Kendall. She was first married to John Nevil, lord Latymer; after whose death she so captivated her amorous sovereign, that he raised her to the throne. The royal nuptials were solemnized at Hampton Court on the 12th of July 1543. Being religiously disposed, she was, in the early part of her life, a zealous observer of the Romish rites and ceremonies; but in the dawning of the Reformation, she became as zealous a promoter of the Lutheran doc-

N° 260.

trine; yet with such prudence and circumspection as her perilous situation required. Nevertheless, we are told, that she was in great danger of falling a sacrifice to the Popish faction, the chief of whom was Bishop Gardiner: he drew up articles against her, and prevailed on the king to sign a warrant to remove her to the Tower. This warrant was, however, accidentally dropped, and immediately conveyed to her majesty. What her apprehensions must have been on this occasion may be easily imagined. She knew the monarch, and she could not help recollecting the fate of his former queens. A sudden illness was the natural consequence. The news of her indisposition brought the king to her apartment. He was lavish in expressions of affection, and sent her a physician. His majesty being soon after also somewhat indisposed, she prudently returned the visit; with which the king seemed pleased, and began to talk with her on religious subjects, proposing certain questions, concerning which he wanted her opinion. She answered, that such profound speculations were not suited to her sex; that it belonged to the husband to choose principles for his wife; the wife's duty was, in all cases, to adopt implicitly the sentiments of her husband: and as to herself, it was doubly her duty, being blessed with a husband who was qualified, by his judgment and learning, not only to choose principles for his own family, but for the most wise and knowing of every nation. "Not so, by St Mary," replied the king; "you are now become a doctor, Kate, and better fitted to give than receive instruction." She meekly replied, that she was sensible how little she was intitled to these praises; that though she usually declined not any conversation, however sublime, when proposed by his majesty, she well knew that her conceptions could serve to no other purpose than to give him a little momentary amusement; that she found the conversation a little apt to languish when not revived by some opposition, and she had ventured sometimes to feign a contrariety of sentiments, in order to give him the pleasure of refuting her; and that she also proposed, by this innocent artifice, to engage him into topics whence she had observed, by frequent experience, that she reaped profit and instruction. "And is it so, sweetheart?" replied the king; "then we are perfect friends again." He embraced her with great affection, and sent her away with assurances of his protection and kindness.

The time being now come when she was to be sent to the Tower, the king, walking in the garden, sent for the queen, and met her with great good humour; when lo the chancellor, with forty of the guards, approached. He fell upon his knees, and spoke softly with the king, who called him knave, arrant knave, beast, fool, and commanded him instantly to depart. Henry then returned to the queen, who ventured to intercede for the chancellor: "Ah, poor soul," said the king, "thou little knowest how evil he deserveth this grace at thy hands. Of my word, sweetheart, he hath been toward thee an arrant knave; and so let him go." The king died in January 1547, just three years and a half after his marriage with this second Catharine; who in a short time was again espoused to Sir Thomas Seymour lord-admiral of England: for in

September

Parr.

Parr.

September 1548 she died in childbed. The historians of this period generally insinuate that she was poisoned by her husband, to make way for his marriage with the lady Elizabeth.

That Catharine Parr was beautiful is beyond a doubt: that she was pious and learned is evident from her writings: and that her prudence and sagacity were not inferior to her other accomplishments, may be concluded from her holding up the passion of a capricious tyrant as a shield against her enemies; and that at the latter end of his days, when his passions were enfeebled by age, and his peevish austerity increased by disease. She wrote, 1. *Queen Catharine Parr's lamentation of a sinner, bewailing the ignorance of her blind life*; Lond. 8vo, 1548, 1563. 2. *Prayers or meditations, wherein the mynd is stirred patiently to suffre all afflictions here, to set at nought the vaine prosperitee of this worlde, and always to long for the everlastynge felicitie*. Collected out of holy workes, by the most virtuous and gracious princeesse Katharine, queene of Englande, France, and Irelande. Printed by John Wayland, 1545, 4to,—1561, 12mo. 3. *Other Meditations, Prayers, Letters, &c.* unpublished.

PARR (Thomas), or *Old Parr*, a remarkable Englishman, who lived in the reigns of ten kings and queens; married a second wife when he was 120, and had a child by her. He was the son of John Parr, a husbandman of Winnington, in the parish of Alderbury, in the county of Salop, where he was born in the year 1483. Though he lived to the vast age of upwards of 152 years, yet the tenor of his life admitted but of little variety; nor can the detail of it be considered of importance, further than what will arise from the gratification of that curiosity which naturally inquires after the mode of living which could lengthen life to such extreme old age. Following the profession of his father, he laboured hard, and lived on coarse fare. Taylor the water-poet says of him:

Good wholesome labour was his exercise,
Down with the lamb, and with the lark would rise;
In mire and toiling sweat he spent the day,
And to his team he whistled time away:
The cock his night-clock, and till day was done,
His watch and chief sun-dial was the sun.
He was of old Pythagoras' opinion,
That green cheese was most wholesomewith an onion;
Coarse messlin bread, and for his daily swig,
Milk, butter-milk, and water, whey and whig:
Sometimes metheglin, and by fortune happy,
He sometimes sipp'd a cup of ale most nappy,
Cyder or perry, when he did repair
T' a Whitson ale, wake, wedding, or a fair,
Or when in Christmas-time he was a guest
At his good landlord's house amongst the rest:
Else he had little leisure-time to waste,
Or at the ale-house huff-cap ale to taste.
Nor did he ever hunt a tavern fox;
Ne'er knew a coach, tobacco, or the ———.
His phyfic was good butter, which the foil
Of Salop yields, more sweet than Candy oil;
And garlic he esteem'd above the rate
Of Venice treacle, or best mithridate.
He entertain'd no gout, no ache he felt,
The air was good and temperate where he dwelt;
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Parr

While mavisses and sweet-tongu'd nightingales
Did chant him roundelays and madrigals.
Thus living within bounds of Nature's laws,
Of his long lasting life may be some cause.

And the same writer describes him in the following two lines:

From head to keel, his body had all over
A quick set, thick set, natural hairy cover.

The manner of his being conducted to London is also noticed in the following terms: "The Right Hon. Thomas Earl of Arundel and Surrey, earl-marshal of England, on being lately in Shropshire to visit some lands and manors which his lordship holds in that county, or for some other occasions of importance which caused his lordship to be there, the report of this aged man was signified to his honour, who hearing of so remarkable a piece of antiquity, his lordship was pleased to see him; and in his innate, noble, and Christian piety, he took him into his charitable tuition and protection, commanding that a litter and two horses (for the more easy carriage of a man so feeble and worn with age) to be provided for him; also, that a daughter of his, named Lucy, should likewise attend him, and have a horse for her own riding with him: and to cheer up the old man, and make him merry, there was an antique-faced fellow, with a high and mighty no-beard, that had also a horse for his carriage. These were all to be brought out of the country to London by easy journeys, the charge being allowed by his lordship; likewise one of his lordship's own servants, named Bryan Kelly, to ride on horseback with them, and to attend and defray all manner of reckonings and expences. All which was done accordingly as follows.

"Winnington is a parish of Alderbury, near a place called the Welch Pool, eight miles from Shrewsbury; from whence he was carried to Wem, a town of the earl's aforesaid; and the next day to Shiffnall, a manor-house of his lordship's, where they likewise stayed one night: from Shiffnall they came to Wolverhampton, and the next day to Birmingham, and from thence to Coventry. Although Master Kelly had much to do to keep the people off, that pressed upon him in all places where he came, yet at Coventry he was most oppressed, for they came in such multitudes to see the old man, that those that defended him were almost quite tired and spent, and the aged man in danger of being stifled; and, in a word, the rabble were so unruly, that Bryan was in doubt he should bring his charge no farther; so greedy are the vulgar to hearken to or gaze after novelties. The trouble being over, the next day they passed to Daintree, to Stony Stratford, to Radburne, and so to London; where he was well entertained and accommodated with all things, having all the aforesaid attendance at the sole charge and cost of his lordship." When brought before the king, his majesty, with more acuteness than good manners, said to him, "You have lived longer than other men, what have you done more than other men?" He answered, "I did penance when I was an hundred years old." This journey, however, proved fatal to him; owing to the alteration in his diet, to the change of the air, and his general mode of life, he lived but a very short time, dying the 5th of November

Parr. 1635 (A); and was buried in Westminster Abbey. After his death, his body was opened; and an account was drawn up by the celebrated Dr Harvey, part of which we shall lay before our readers.

"Thomas Parr was a poor countryman of Shropshire, whence he was brought up to London by the Right Hon. Thomas Earl of Arundel and Surrey; and died after he had outlived nine princes, in the tenth year of the tenth of them, at the age of 152 years and nine months.

"He had a large breast, lungs not fungous, but sticking to his ribs, and distended with blood; a lividness in his face, as he had a difficulty of breathing a little before his death, and a long lasting warmth in his armpits and breast after it; which sign, together with others, were so evident in his body, as they use to be on those that die by suffocation. His heart was great, thick, fibrous, and fat. The blood in the heart blackish and diluted. The cartilages of the sternum not more bony than in others, but flexible and soft. His viscera were found and strong, especially the stomach; and it was observed of him, that he used to eat often by night and day, though contented with old cheese, milk, coarse bread, small beer, and whey; and, which is more remarkable, that he eat at midnight a little before he died. His kidneys were covered with fat, and pretty sound; only on the interior surface of them were found some aqueous or serous abscesses, whereof one was near the bigness of a hen egg, with a yellowish water in it, having made a roundish cavity, impressed on that kidney; whence some thought it came that a little before his death a suppression of urine had befallen him; though others were of opinion, that his urine was suppressed upon the regurgitation of all the serosity into his lungs. Not the least appearance there was of any stony matter either in the kidneys or bladder. His bowels were also sound, a little whitish without. His spleen very little, hardly equalling the bigness of one kidney. In short, all his inward parts appeared so healthy, that if he had not changed his diet and air, he might perhaps have lived a good while longer. The cause of his death was imputed chiefly to the change of food and air; forasmuch as coming out of a clear, thin, and free air, he came into the thick air of London; and after a constant plain and homely country diet, he was taken into a splendid family, where he fed high and drank plentifully of the best wines, whereupon the natural functions of the parts of his body were overcharged, his lungs obstructed, and the habit of the whole body quite disordered; upon which there could not but ensue a dissolution. His brain was found, entire, and firm; and though he had not the use of his eyes, nor much of his memory, several years before he died, yet he had his hearing and apprehension very well; and was able, even to the 130th year of his age, to do any husbandman's work, even threshing of corn."

The following summary of his life is copied from Oldys's MS. notes on Fuller's Worthies: Old Parr

was born 1483; lived at home until 1500, æt. 17, when he went out to service. 1518, æt. 35, returned home from his master. 1522, æt. 39, spent four years on the remainder of his father's lease. 1543, æt. 60, ended the first lease he renewed of Mr Lewis Porter. 1563, æt. 80, married Jane, daughter of John Taylor, a maiden; by whom he had a son and a daughter, who both died very young. 1564, æt. 81, ended the second lease which he renewed of Mr John Porter. 1585, æt. 102, ended the third lease he had renewed of Mr Hugh Porter. 1588, æt. 105, did penance in Alderbury church, for lying with Katharine Milton, and getting her with child. 1595, æt. 112, he buried his wife Jane, after they had lived 32 years together. 1605, æt. 122, having lived 10 years a widower, he married Jane, widow of Anthony Adda, daughter of John Lloyd of Gilsells, in Montgomeryshire, who survived him. 1635, æt. 152, he died; after they had lived together 30 years, and after 50 years possession of his last lease. See LONGEVITY.

PARRA, in ornithology, a genus of birds belonging to the order of gallæ; the characters of which are: The bill is tapering and a little obtuse; the nostrils are oval, and situated in the middle of the bill; the forehead is covered with fleshy caruncles, which are lobated; the wings are small, and spinous. There are five species; of which the most remarkable is the chavaria, which is about the size of the domestic cock. The Indians in the neighbourhood of Carthage, who breed large flocks of poultry that stray in the woods, train up the chavaria to defend them against the numerous birds of prey, no one of which will dare to encounter it. It is never known to desert the flock, and it returns every evening to roost.

The parra Dominica is about the size of the lapwing. The bill is yellow, as are also the head and upper parts; the under are of a yellowish white bordering on rose colour. The legs are also yellow. This species inhabits several of the warmer parts of America and St Domingo. The parra senegalla is about the same size with the former. Its bill is also yellow tipped with black; the forehead is covered with a yellow skin; the chin and throat are black; the head and upper parts of the body and lesser wing-coverts are grey-brown. The lower part of the belly, and the upper and under tail-coverts are dirty white. At the bend of the wing is a black spur. It inhabits Senegal, and thence derives its name. The negroes call them *Uett Uett*, the French the *squallers*, because, as we are told, as soon as they see a man they scream and fly off. They always fly in pairs. The parra jacana, or spur-winged water-hen, is about the size of the water-rail. The bill is in length about an inch and a quarter, of an orange colour; and on the forehead is a membranous flap half an inch long and nearly as broad. On each side of the head also is another of the same, about a quarter of an inch broad, and both together they surround the base of the bill. The head, throat, neck, breast, and underparts,

(A) The author of a book intitled *Long Livers*, 8vo, 1722, which Oldys in his MS. notes on Fuller ascribes to one Robert Samber, against all evidence says, p. 89, that Parr died sixteen years after he had been presented to the king, 24th of November 1651.

Parra. parts, are black; and sometimes the belly is mixed with white, &c. The birds of this species inhabit Brasil, Guiana, and Surinam; but are equally common at St Domingo, where they frequent the marshy places, sides of ponds, and streams, and wade quite up to the thighs in the water. They are also generally seen in pairs, and when separated call each other continually till they join again. They are very shy, and most common in the rainy seasons in May and November. They are at all times very noisy; their cry sharp and shrill, and may be heard a great way off. This, as well as the other species, is called by the French *chirurgien*. The flesh is accounted pretty good. The parra variabilis, or spur-winged water-hen, is about nine inches long. The bill is about 14 inches in length, and in colour is orange-yellow. On the forehead is a flap of red skin; the crown of the head is brown, marked with spots of a darker colour; the hind part of the neck is much the same, but of a deeper dye. The sides of the head, throat, forepart of the neck, breast, belly, thighs, and under-tail coverts are white, with a few red spots on the sides of the belly and base of the thighs. On the forepart of the wing is a yellow spur, &c. The legs are furnished with long toes, as in all the others, the colour of which is bluish ash. Mr Latham says, that one which came under his inspection from Cayenne was rather smaller. It had the upper parts much paler; over the eye was a streak of white passing no further, and unaccompanied by a black one. The hind part of the neck was dusky black. It had only the rudiment of a spur; and the red caruncle on the forehead was less, and laid back on the forehead. From these differences this learned ornithologist conceives it to have differed either in sex or age from the other. This species inhabits Brasil, and is said to be pretty common about Carthage and in South America. The parra chavaria is, as we have already observed, about the size of a dunghill cock, and stands a foot and a half from the ground. The bill is of a dirty white colour; the upper mandible similar to that in a dunghill cock; the nostrils are oblong, pervious: on both sides, at the base of the bill, is a red membrane, which extends to the temples. The irides are brown. On the hind head are about 12 blackish feathers, three inches in length, forming a crest and hanging downwards. The rest of the neck is covered with a thick black down. The body is brown, and the wings and tail inclined to black. On the bend of the wing are two or three spurs half an inch long. The belly is a light black. The thighs are half bare of feathers. The legs are very long, and of a yellow red colour. The toes are so long as to entangle one another in walking. "This species inhabits the lakes, &c. near the river Cinu, about 30 leagues from Carthage, in South America, and is said to feed on vegetables. Its gait is solemn and slow; but it flies easily and swiftly. It cannot run, unless assisted by the wings at the same time. When any part of the skin is touched by the hand, a crackling is felt, though it is very downy beneath the feathers; and indeed this down adheres so closely as to enable the bird at times to swim. The voice is clear and loud, but far from agreeable. The natives, who keep poultry in great numbers, have one of these tame, which goes along with the flock about the neighbourhood to feed during the day, when this

Latham's
Synopsis.

faithful shepherd defends them against birds of prey; being able, by means of the spurs on the wings, to drive off birds as big as the carrion vulture, and even that bird itself. It is so far of the greatest use, as it never deserts the charge committed to its care, bringing them all home safe at night. It is so tame as to suffer itself to be handled by a grown person; but will not permit children to attempt the same.—For the above account we are indebted to Linnæus, who seems to be the only one who has given any account of this wonderful bird." See *Latham's Synopsis*.

Parrels
||
Parrhasius.

PARRELS, in a ship, are frames made of trucks, ribs, and ropes, which having both their ends fastened to the yards, are so contrived as to go round about the masts, that the yards by their means may go up and down upon the mast: These also, with the breast-ropes, fasten the yards to the masts.

PARRET or **PEDRED** river, has its rise in the southern part of Somersetshire in England. Near Langport it is joined by the Ordred, augmented by the Ivel; and, about four miles from this junction, it is joined by the Tone or Thone, a pretty large river, rising among the hills in the western parts of this county. About two miles below the junction of the Tone, the Parret receives another considerable stream; and, thus augmented, it passes by the town of Bridgewater, and falls into the Bristol channel in Bridgewater-bay.

PARRHASIUS, a famous ancient painter of Ephesus, or, as some say, of Athens: he flourished about the time of Socrates, according to Xenophon, who hath introduced him into a dialogue discoursing with that philosopher. He was one of the best painters in his time. Pliny says, that it was he who first gave symmetry and just proportions in that art; that he likewise was the first who knew how to express the truth and life of characters, and the different airs of the face; that he discovered a beautiful disposition of the hair, and heightened the grace of the visage. It was allowed even by the masters in the art, that he far outshone them in the glory of succeeding in the outlines, in which consists the grand secret of painting. But it is also remarked by Pliny, that Parrhasius became insupportable with pride; and was so very vain as to give himself the most flattering epithets; such as, the tenderest, the softest, the grandest, the most delicate, and the perfecter of his art. He boasted that he was sprung from Apollo, and that he was born to paint the gods; that he had actually drawn Hercules touch by touch: that heroes having often appeared to him in dreams, when the plurality of voices was against him at Samos in favour of Timanthes, in the opinion of a picture of Ajax provoked against the Greeks, for adjudging to Ulysses the arms of Achilles, he answered a person who consoled him on this check, "For my part, I don't trouble myself at the sentence; but I am sorry that the son of Telamon hath received a greater outrage than that which was formerly put upon him so unjustly." Ælian relates this story, and tells us that Parrhasius affected to wear a crown of gold upon his head, and to carry in his hand a baton, studded with nails of the same metal. He worked at his art with pleasantry, often indeed singing. He was very licentious and loose in his pictures; and he is said, by way of amusement, to have represented the

Parrhasius. most infamous objects. His Atalantis, with her spouse Meleager, was of this kind. This piece was afterwards devised as a legacy to the Emperor Tiberius, upon condition that, if he was displeased with the subject, he should receive a million sesterces instead of it. The emperor, covetous as he was, not only preferred the picture to that sum, but even placed it in his most favourite apartment. It is also said, that, though Parrhasius was excelled by Timanthes, yet he excelled Zeuxis. Among his pictures is a celebrated one of Theseus; and another representing Meleager, Hercules, and Perseus in a group together; as also Æneas, with Castor and Pollux, in a third.

PARRHASIUS (Janus), a famous grammarian in Italy, who was born at Cosenza in the kingdom of Naples, 1470. He was intended for the law, the profession of his ancestors; but he refused it, and cultivated classical learning. His real name was Johannes Paulus Parisius; but according to the humour of the grammarians of the age, he took instead of it Parrhasius. He taught at Milan with much reputation, being admired for a graceful delivery, in which he chiefly excelled other professors. — It was this charm in his voice, which brought a vast concourse of people to his lectures; and among others he had the pleasure to see General Trimoles, who was then threescore years old. He went to Rome when Alexander VI. was pope; and was like to be involved in the misfortunes of Bernardini Cajetan and Silius Savello, with whom he had some correspondence; but he escaped the danger, by the information of Thomas Phœdrus, professor of rhetoric, and canon of St John Lateran, whose advice he followed in retiring from Rome. Soon after, he was appointed public professor of rhetoric at Milan; but the liberty he took to censure the teachers there as arrant blockheads, provoked them in return to asperse his morals. They said he had a criminal converse with his scholars: which being a crime extremely abhorred by the Milanese, our professor was obliged to leave Milan. He went to Vicenza, where he obtained a larger salary; and he held this professorship till the states of the Venetians were laid waste by the troops of the League: upon which he went to his native country, having made his escape through the army of the enemies. He was at Cosenza, when his old friend Phœdrus persuaded Julius to send for him to Rome; and, though that design proved abortive by the death of the pope, yet, by the recommendation of John Lascaris, he was called thither under the successor Leo X. Leo was before favourably inclined to him; and on his arrival at Rome, appointed him professor of polite literature. He had been now some time married to a daughter of Demetrius Chalcondylas; and he took with him to Rome Basil Chalcondylas, his wife's brother, and brother of Demetrius Chalcondylas, professor of the Greek tongue at Milan. He did not long enjoy this employ conferred upon him by the pope: for, worn out by his studies and labours, he became so afflicted with the gout, that for some years he had no part of his body free, except his tongue; having almost lost the use of both his legs and both his arms. He laboured besides under so great a degree of poverty, as put him out of all hopes of being ever in a better situation; so that he left Rome, and returned into Calabria, his native

country, where he was tormented a long while with a fever, and at last died in the greatest misery. He left his library to his friend Seripandus, brother to Cardinal Jerome Seripandus, who built him a tomb in the convent of the Austin friars at Naples. There are several books ascribed to him; and in the dedication of one of them, his character is drawn to great advantage by Henry Stephens.

PARRHESIA. See ORATORY, n° 88.

PARRICIDE, the murder of one's parents or children. By the Roman law, it was punished in a much severer manner than any other kind of homicide. After being scourged, the delinquents were sewed up in a leathern sack, with a live dog, a cock, a viper, and an ape, and so cast into the sea. Solon, it is true, in his laws, made none against parricide; apprehending it impossible that one should be guilty of so unnatural a barbarity. And the Persians, according to Herodotus, entertained the same notion, when they adjudged all persons who killed their reputed parents to be bastards. And upon some such reason as this must we account for the omission of an exemplary punishment for this crime in our English laws; which treat it no otherwise than as simple murder, unless the child was also the servant of the parent.

For though the breach of natural relation is unobserved, yet the breach of civil or ecclesiastic connections, when coupled with murder, denominates it a new offence; no less than a species of treason, called *parva proditio*, or *petit treason*: which, however, is nothing else but an aggravated degree of murder; although, on account of the violation of private allegiance, it is stigmatized as an inferior species of treason. And thus, in the ancient Gothic constitution, we find the breach both of natural and civil relations ranked in the same class with crimes against the state and sovereign.

PARROT, in ornithology. See PSITTACUS.

PARSHORE, a town of England in Worcestershire, seven miles from Worcester, and 102 from London, is a neat old town on the north side of the Avon, near its junction with the river Bow, being a considerable thoroughfare in the lower road from Worcester to London. A religious house was founded here in 604, a small part of which now remains, and is used as the parish church of Holy Cross, the whole of which contained above 10 acres. The abbey church was 250 feet long, and 120 broad. The parish of Parshore is of great extent, and hath within its limits many manors and chapelries. At present it has two parishes, Holy Cross and St Andrew. In Holy Cross church are several very antique monuments. Its chief manufacture is stockings. It contains about 300 houses, and has markets on Tuesday and Saturday; fairs Easter-Tuesday, June 26th, and Tuesday before November 1st.

PARSLEY, in botany. See APIUM.

PARSNIP, in botany. See PASTINACA.

PARSON and VICAR. A parson, *persona ecclesiæ*, is one that hath full possession of all the rights of a parochial church. He is called parson, *persona*, because by his person the church, which is an invisible body, is represented; and he is in himself a body corporate, in order to protect and defend the rights of the church (which he personates) by a perpetual succession.

Parrhesia
||
Parson.

Blackst.
Comments

Parson.

cession. He is sometimes called the *rector* or *governor* of the church: but the appellation of *parson* (however it may be depreciated by familiar, clownish, and indiscriminate use) is the most legal, most beneficial, and most honourable title that a parish-priest can enjoy; because such a one (Sir Edward Coke observes), and he only, is said *vicem seu personam ecclesie gerere*. A parson has, during his life, the freehold in himself of the parsonage-house, the glebe, the tithes, and other dues. But these are sometimes *appropriated*; that is to say, the benefice is perpetually annexed to some spiritual corporation, either sole or aggregate, being the patron of the living; whom the law esteems equally capable of providing for the service of the church as any single private clergyman*.

* See Appropriation.

The appropriating corporations, or religious houses, were wont to depute one of their own body to perform divine service, and administer the sacraments, in those parishes of which the society was thus the parson. This officiating minister was in reality no more than a curate, deputy, or vicergerent of the appropriator, and therefore called *vicarius*, or "vicar." His stipend was at the discretion of the appropriator, who was, however, bound of common right to find somebody, *qui illi de temporalibus, episcopo de spiritualibus, debeat respondere*. But this was done in so scandalous a manner, and the parishes suffered so much by the neglect of the appropriators, that the legislature was forced to interpose: and accordingly it is enacted, by statute 15 Ric. II. c. 6. that in all appropriations of churches the diocesan bishop shall ordain (in proportion to the value of the church) a competent sum to be distributed among the poor parishioners annually; and that the vicarage shall be sufficiently endowed. It seems the parish were frequently sufferers, not only by the want of divine service, but also by withholding those alms for which, among other purposes, the payment of tithes was originally imposed: and therefore in this act a pension is directed to be distributed among the poor parochians, as well as a sufficient stipend to the vicar. But he, being liable to be removed at the pleasure of the appropriator, was not likely to insist too rigidly on the legal sufficiency of the stipend; and therefore, by statute 4 Hen. IV. c. 12. it is ordained, that the vicar shall be a secular person, not a member of any religious house; that he shall be vicar perpetual, not removable at the caprice of the monastery; and that he should be canonically instituted and inducted, and be sufficiently endowed, at the discretion of the ordinary; for these three express purposes, to do divine service, to inform the people, and to keep hospitality. The endowments, in consequence of these statutes, have usually been by a portion of the glebe or land belonging to the parsonage, and a particular share of the tithes, which the appropriators found it most troublesome to collect, and which are therefore generally called *petty* or *small tithes*; the greater, or *perdial tithes*, being still reserved to their own use. But one and the same rule was not observed in the endowment of all vicarages. Hence some are more liberally, and some more scantily, endowed: and hence the tithes of many things, as wood in particular, are in some parishes rectorial, and in some vicarial tithes.

The distinction therefore of a parson and vicar is this: The parson has for the most part the whole

right to all the ecclesiastical dues in his parish; but a vicar has generally an appropriator over him, intitled to the best part of the profits, to whom he is in effect perpetual curate, with a standing salary. Though in some places the vicarage has been considerably augmented by a large share of the great tithes; which augmentations were greatly assisted by the statute 27 Car. II. c. 8. enacted in favour of poor vicars and curates, which rendered such temporary augmentations (when made by the appropriators) perpetual.

The method of becoming a parson or vicar is much the same. To both there are four requisites necessary; holy orders, presentation, institution, and induction. The method of conferring the holy orders of deacon and priest, according to the liturgy and canons, is foreign to the present purpose; any farther than as they are necessary requisites to make a complete parson or vicar. By common law, a deacon, of any age, might be instituted and inducted to a parsonage or vicarage: but it was ordained, by statute 13 Eliz. c. 12. that no person under twenty-three years of age, and in deacon's orders, should be presented to any benefice with cure; and if he were not ordained priest within one year after his induction, he should be *ipso facto* deprived: and now, by statute 13 and 14 Car. II. c. 4. no person is capable to be admitted to any benefice, unless he hath been first ordained a priest; and then he is, in the language of the law, a clerk in orders. But if he obtains orders, or a licence to preach, by money or corrupt practices, (which seems to be the true, though not the common, notion of simony), the person giving such orders forfeits 40*l*. and the person receiving, 10*l*. and is incapable of any ecclesiastical preferment for seven years after.

Any clerk may be presented to a parsonage or vicarage; that is, the patron, to whom the advowson of the church belongs, may offer his clerk to the bishop of the diocese to be instituted. But when he is presented, the bishop may refuse him upon many accounts. As, 1. If the patron is excommunicated, and remains in contempt 40 days; or, 2. If the clerk be unfit: which unfitness is of several kinds. First, with regard to his person; as if he be a bastard, an outlaw, an excommunicate, an alien, under age, or the like. Next, with regard to his faith or morals; as for any particular heresy, or vice that is *malum in se*; but if the bishop alleges only in generals, as that he is *schismaticus inveteratus*, or objects a fault that is *malum prohibitum* merely, as haunting taverns, playing at unlawful games, or the like, it is not good cause of refusal. Or, lastly, the clerk may be unfit to discharge the pastoral office for want of learning. In any of which cases, the bishop may refuse the clerk. In case the refusal is for heresy, schism, inability of learning, or other matter of ecclesiastical cognizance, there the bishop must give notice to the patron of such his cause of refusal, who being usually a layman, is not supposed to have knowledge of it; else he cannot present by lapse; but if the cause be temporal, there he is not bound to give notice.

If an action at law be brought by the patron against the bishop for refusing his clerk, the bishop must assign the cause. If the cause be of a temporal nature, and the fact admitted, (as, for instance, outlawry), the judges of the king's courts must determine its validity.

Parson.

Parson.

or whether it be sufficient cause of refusal: but if the fact be denied, it must be determined by a jury. If the cause be of a spiritual nature, (as heresy, particularly alleged), the fact, if denied, shall also be determined by a jury: and if the fact be admitted or found, the court, upon consultation and advice of learned divines, shall decide its sufficiency. If the cause be want of learning, the bishop need not specify in what points the clerk is deficient, but only allege that he is deficient; for the statute 9 Edw. II. ft. 1. c. 13. is express, that the examination of the fitness of a person presented to a benefice belongs to the ecclesiastical judge. But because it would be nugatory in this case to demand the reason of refusal from the ordinary, if the patron were bound to abide by his determination, who has already pronounced his clerk unfit; therefore if the bishop returns the clerk to be *minus sufficiens in literatura*, the court shall write to the metropolitan to re-examine him, and certify his qualifications; which certificate of the archbishop is final.

If the bishop hath no objections, but admits the patron's presentation, the clerk so admitted is next to be instituted by him; which is a kind of investiture of the spiritual part of the benefice; for by institution, the care of the souls of the parish is committed to the charge of the clerk. When a vicar is instituted, he (besides the usual forms) takes, if required by the bishop, an oath of perpetual residence; for the maxim of law is, that *vicarius non habet vicarium*: and as the non-residence of the appropriators was the cause of the perpetual establishment of vicarages, the law judges it very improper for them to defeat the end of their constitution, and by absence to create the very mischief which they were appointed to remedy; especially as, if any profits are to arise from putting in a curate and living at a distance from the parish, the appropriator, who is the real parson, has undoubtedly the elder title to them. When the ordinary is also the patron, and confers the living, the presentation and institution are one and the same act, and are called a *collation to a benefice*. By institution or collation the church is full, so that there can be no fresh presentation till another vacancy, at least in the case of a common patron; but the church is not full against the king till induction: nay, even if a clerk is instituted upon the king's presentation, the crown may revoke it before induction, and present another clerk. Upon institution also the clerk may enter on the parsonage-house and glebe, and take the tithes; but he cannot grant or let them, or bring an action for them, till induction. See INDUCTION.

For the rights of a parson or vicar, in his tithes and ecclesiastical dues, see TITHES. As to his duties, they are so numerous, that it is impracticable to recite them here with any tolerable conciseness or accuracy; but the reader who has occasion may consult *Bishop Gibson's Codex*, *Johnson's Clergyman's Vade Mecum*, and *Burn's Ecclesiastical Law*. We shall therefore only just mention the article of residence, upon the supposition of which the law doth style every parochial minister an incumbent. By statute 21 Henry VIII. c. 13. persons willingly absenting themselves from their benefices, for one month together, or two months in the year, incur a penalty of 5 l. to the king, and 5 l. to any person that will sue for the same; except chaplains to the king, or others therein mention-

ed, during their attendance in the household of such as retain them; and also except all heads of houses, magistrates, and professors in the universities, and all students under forty years of age residing there, *bona fide*, for study. Legal residence is not only in the parish, but also in the parsonage house; for it hath been resolved, that the statute intended residence, not only for serving the cure and for hospitality, but also for maintaining the house, that the successor also may keep hospitality there.

We have seen that there is but one way whereby one may become a parson or vicar: there are many ways by which one may cease to be so. 1. By death. 2. By cession, in taking another benefice; for by statute 21 Hen. VIII. c. 13. if any one having a benefice of 8 l. *per annum*, or upwards, in the king's books, (according to the present valuation), accepts any other, the first shall be adjudged void, unless he obtains a dispensation; which no one is intitled to have but the chaplains of the king and others therein mentioned, the brethren and sons of lords and knights, and doctors and bachelors of divinity and law, admitted by the universities of this realm. And a vacancy thus made for want of a dispensation, is called *cession*. 3. By consecration; for, as was mentioned before, when a clerk is promoted to a bishopric, all his other preferments are void the instant that he is consecrated. But there is a method, by the favour of the crown, of holding such livings in *commendam*. *Commenda*, or *ecclesia commendata*, is a living commended by the crown to the care of a clerk, to hold till a proper pastor is provided for it. This may be temporary for one, two, or three years, or perpetual, being a kind of dispensation to avoid the vacancy of the living, and is called a *commenda retinere*. There is also a *commenda recipere*, which is to take a benefice *de novo* in the bishop's own gift, or the gift of some other patron consenting to the same; and this is the same to him as institution and induction are to another clerk. 4. By resignation. But this is of no avail till accepted by the ordinary, into whose hands the resignation must be made. 5. By deprivation, either by canonical censures, or in pursuance of divers penal statutes, which declare the benefice void, for some nonfeasance or neglect, or else some malefeasance or crime: as for simony; for maintaining any doctrine in derogation of the king's supremacy, or of the thirty-nine articles, or of the book of common-prayer; for neglecting after institution to read the liturgy and articles in the church, or make the declarations against Popery, or take the abjuration-oath; for using any other form of prayer than the liturgy of the church of England; or for absenting himself 60 days in one year from a benefice belonging to a Popish patron, to which the clerk was presented by either of the universities: in all which, and similar cases, the benefice is *ipso facto* void, without any formal sentence of deprivation.

PARSONAGE, a rectory, or parish-church, endowed with a glebe, house, lands, tithes, &c. for the maintenance of a minister, with cure of souls within such parish. See PARSON.

PARSONS, or PERSONS (Robert), an eminent writer of the church of Rome, was born at Nether-Stowey, near Bridgewater, in Somersetshire, in 1546, and educated at Baliol college, Oxford, where he distinguished himself as a zealous Protestant and an acute dif-

Parson
Parsons.

Parsons,
Part.

disputant; but being charged by the society with incontinency and embezzling the college money, he went to Flanders, and declared himself a Catholic. After travelling to several other places, he effected the establishment of the English seminary at Rome, and procured father Allen to be chosen rector of it. He himself was appointed the head of the mission to England, in order to dethrone Queen Elizabeth, and if possible extirpate the Protestant religion. He accordingly came over to this kingdom in 1580, and took some bold steps towards accomplishing his purpose, in which he concealed himself with great art, travelling about the country to gentlemen's houses, disguised in the habit sometimes of a soldier, sometimes of a gentleman, and at other times like a minister or an apparitor; but father Campian being seized and committed to prison, our author escaped out of England for fear of the same fate, and went to Rome, where he was made rector of the English seminary. He had long entertained the most sanguine hopes of converting to the Popish faith the young king of Scots, which he considered as the best and most effectual means of bringing over his subjects to the same religious principles; but finding it impossible to succeed in his design, he published in 1594 his celebrated book, under the feigned name of *Doleman*, in order to overthrow, as far as lay in his power, the title of that prince to the crown of England. He died at Rome in 1610, and was buried in the chapel of the English college. Besides the book already mentioned, he wrote, 1. A Defence of the Catholic Hierarchy. 2. The Liturgy of the Sacrament of the Mass. 3. A Memorial for the Reformation; and several other tracts.

PART, a portion of some whole, considered as divided or divisible.

Logical PART, is a division for which we are indebted to the schoolmen. It refers to some universal as its whole; in which sense the species are parts of a genus, and individuals or singulars are parts of the species.

Physical PART, is that which, though it enter the composition of a whole, may yet be considered apart, and under its own distinct idea; in which sense, a continuum is said to consist of parts. Physical parts, again, are of two kinds, homogeneous and heterogeneous; the first are those of the same denomination with some other; the second of a different one: (See *HOMOGENEOUS*, &c.) Parts, again, are distinguished into subjective, essential, and integrant. The schoolmen were also the authors of this division.

Aliquot PART, is a quantity which, being repeated any number of times, becomes equal to an integer. Thus 6 is an aliquot part of 24, and 5 an aliquot part of 30, &c.

Aliquant PART, is a quantity which, being repeated any number of times, becomes always either greater or less than the whole. Thus 5 is an aliquant part of 17, and 9 an aliquant part of 10, &c.

The aliquant part is resolvable into aliquot parts. Thus 15, an aliquant part of 20, is resolvable into $10\frac{1}{2}$, and 5 a fourth part of the same.

PARTS of Speech, in grammar, are all the sorts of words which can enter the composition of a discourse. See *GRAMMAR*.

PARTERRE, in gardening, a level division of ground, which for the most part faces the south, or best front of a house, and is generally furnished with evergreens, flowers, &c. There are two kinds of these, the plain ones and the parterres of embroidery.

Plain parterres are most valuable in England, because of the firmness of the English grass turf, which is superior to that of any other part of the world; and the parterres of embroidery are cut into shell and scroll work, with alleys between them. An oblong, or long square, is accounted the most proper figure for a parterre; and a parterre should indeed be always twice as long as it is broad, because, according to the known laws of perspective, a long square always sinks to a square; and an exact square always appears less than it really is. As to the breadth of a parterre, it is to be proportionable to the front of the house; but less than 100 feet in breadth is too little.

There should be on each side the parterre a terrace walk raised for a view, and the flat of the parterre between the terraces should never be more than 300 feet, at the utmost, in breadth, and about 140 feet in width, with twice and a half that in length, is esteemed a very good size and proportion.

PARTHENIUM, in botany: A genus of the pentandria order, belonging to the monœcia class of plants; and in the natural method ranking under the 49th order, *Compositæ*. The male calyx is common and pentaphyllous; the florets of the disk monopetalous: the female has five florets of the radius, each with two male florets behind it; the intermediate female superior; the seed is naked.

It has been much neglected in Europe, having on account of its smell been banished from our parterres. It is therefore indebted for its culture to the distinguished rank it holds among the Chinese flowers. The skill of the florists, and their continual care, have brought this plant to so great perfection, that Europeans scarcely know it. The elegance and lightness of its branches, the beautiful indentation of its leaves, the splendour and duration of its flowers, seem indeed to justify the *florimania* of the Chinese for this plant. They have, by their attention to its culture, procured more than 300 species of it: every year produces a new one. A list of the names of all these kinds would be equally tedious and disgusting; we shall only say in general, that in its flowers are united all the possible combinations of shapes and colours. Its leaves are no less various: some of them are thin, others thick; some are very small, and some large and broad; some are indented like those of the oak, while others resemble those of the cherry-tree; some may be seen cut in the form of fins, and others are found serrated on the margin, and tapering towards the points.

Parthenium is propagated in China by seed, and by suckers, grafts, and slips. When the florists have a fine plant, they suffer the seeds to ripen, and about the end of autumn sow them in well-prepared earth. Some keep them in this manner during winter, others sow them in spring. Provided they are watered after the winter, they shoot forth, and grow rapidly. After the parthenium has flowered, all its branches are cut three inches from the root, the earth is hoed around, and a little dung is mixed with it; and when the cold be-

Parterre
||
Parthe-
nium.

Grosier's
General De-
scription of
China.

Parthenium,
Parthia.

comes severe, the plant is covered with straw, or an inverted pot. Those that are in vases are transported to the green-house, where they are not watered. In spring they are uncovered and watered, and they shoot forth a number of stems: of these some florists leave only two or three, others pull up the stalk, together with the whole root, and divide it into several portions, which they transplant elsewhere. There are some who join two slips of different colours, in each of which, towards the bottom, they make a long notch, almost to the pith, and afterwards tie them together with packthread, that they may remain closely united: by these means they obtain beautiful flowers, variegated with whatever colours they choose.

Parthenium requires a good exposure, and fresh moist air that circulates freely: when shut up closely by four walls, it soon languishes. The earth in which it is planted ought to be rich, moist, and loamy, and prepared with great care. For refreshing it, the Chinese use only rain or river-water; and in spring-time, they mix with this water the excrements of silk-worms or the dung of their poultry; in summer, they leave the feathers of ducks or fowls to infuse in it for several days, after having thrown into it a little saltpetre; but in autumn they mix with the water a greater or smaller quantity of dried excrement reduced to powder, according as the plant appears more or less vigorous. During the great heats of summer, they water it morning and evening; but they moisten the leaves only in the morning: they also place small fragments of brick round its root, to prevent the water from pressing down the earth too much. All this attention may appear trifling; but it is certain that it is founded upon experience and observation, and it is only by the assistance of such minute care, that the patient and provident Chinese has been able to procure, from a wild and almost stinking plant, so beautiful and odoriferous flowers. The more common species are, 1. *Hysterophorus*. 2. *Integrifolium*.

Ancient
divisions.

PARTHIA, a celebrated empire of antiquity, bounded on the west by Media, on the north by Hyrcania, on the east by Aria, on the south by Carmania the desert; surrounded on every side by mountains, which still serve as a boundary, though its name is now changed, having obtained that of *Eyrac* or *Arac*; and to distinguish it from Chaldaea, that of *Eyrac Agami*. By Ptolemy it is divided into five districts, viz. *Gaminfine*, or *Gamifene*, *Parthyene*, *Choroane*, *Atticene*, and *Tabiene*. The ancient geographers enumerate a great many cities in this country. Ptolemy in particular reckons 25 large cities; and it certainly must have been very populous, since we have accounts of 2000 villages, besides a number of cities, in this district being destroyed by earthquakes. Its capital was named *Hecatompolis*, from the circumstance of its having 100 gates. It was a noble and magnificent place; and, according to some, it still remains under the name of *Ispahan*, the capital of the present Persian empire.

2
Whence
peopled.

Parthia is by some supposed to have been first peopled by the Phetri or Pathri, often mentioned in scripture, and will have the Parthians to be descended from Pathrusim the son of Misraim. But however true this may be with regard to the ancient inhabitants, yet it is certain, that those Parthians who were so famous in N° 260.

history, descended from the Scythians, though from Parthia, what tribe we are not certainly informed.

The history of the ancient Parthians is totally lost. All that we know about them is, that they were first subject to the Medes, afterwards to the Persians, and lastly to Alexander the Great. After his death the province fell to Seleucus Nicator, and was held by him and his successors till the reign of Antiochus Theus, about the year 250 before Christ. At this time the Parthians revolted, and chose one Arsaces for their king. The immediate cause of this revolt was the Cause of the Parthians revolt from Antiochus Theus. lewdness of Agathocles, to whom Antiochus had committed the care of all the provinces beyond the Euphrates. This man made an infamous attempt on Tetricides, a youth of great beauty; which so enraged his brother Arsaces, that he excited his countrymen to revolt; and before Antiochus had leisure to attend to the rebellion, it became too powerful to be crushed. Seleucus Callinicus, the successor of Antiochus Theus, attempted to reduce Arsaces; but the latter having had so much time to strengthen himself, defeated and drove his antagonist out of the country. Seleucus, however, in a short time, undertook another expedition against Arsaces; but was still more unfortunate than he had been in the former, being not only defeated in a great battle, but taken prisoner, and died in captivity. The day on which Arsaces gained this victory was ever after observed among the Parthians as an extraordinary festival. Arsaces being thus fully established in his new kingdom, reduced Hyrcania and some other provinces under his power; and was at last killed in a battle against Arearathes IV. king of Cappadocia. From this prince all the other kings of Parthia took the surname of *Arsaces*, as those of Egypt did that of *Ptolemy* from Ptolemy Soter.

Arsaces I. was succeeded by his son Arsaces II. who, entering Media, made himself master of that country, while Antiochus the Great was engaged in a war with Ptolemy Euergetes king of Egypt. Antiochus, however, was no sooner disengaged from that war, than he marched with all his forces against Arsaces, and at first drove him quite out of Media. But he soon returned with an army of 100,000 foot and 20,000 horse, with which he put a stop to the further progress of Antiochus; and a treaty was soon after concluded, in which it was agreed, that Arsaces should remain master of Parthia and Hyrcania, upon condition of his assisting him in his wars with other nations.

Arsaces II. was succeeded by his son Priapatus, Conquests of the Parthian monarchs. who reigned 15 years, and left three sons, Phraates, Mithridates, and Artabanus. Phraates, the eldest, succeeded to the throne, and reduced under his subjection the Mardi, who had never been conquered by any but Alexander the Great. After him, his brother Mithridates was invested with the regal dignity. He reduced the Bactrians, Medes, Persians, Elymeans, and over-ran in a manner all the east, penetrating beyond the boundaries of Alexander's conquests. Demetrius Nicator, who then reigned in Syria, endeavoured to recover those provinces; but his army was entirely destroyed, and himself taken prisoner, in which state he remained till his death; after which victory Mithridates made himself master of Babylonia and Mesopotamia, so that he now commanded all the provinces from between the Euphrates and the Ganges.

Mithri-

Parthia.

5
Antiochus
Sidetes de-
stroyed
with his
whole ar-
my.

Mithridates died in the 37th year of his reign, and left the throne to his son Phrahates II. who was scarce settled in his kingdom when Antiochus Sidetes marched against him at the head of a numerous army, under pretence of delivering his brother Demetrius, who was still in captivity. Phrahates was defeated in three pitched battles; in consequence of which he lost all the countries conquered by his father, and was reduced within the limits of the ancient Parthian kingdom. Antiochus did not, however, long enjoy his good fortune; for his army, on account of their number, amounting to no fewer than 400,000, being obliged to separate to such distances as prevented them, in case of any sudden attack, from joining together, the inhabitants, whom they had most cruelly oppressed, taking advantage of this separation, conspired with the Parthians to destroy them. This was accordingly executed; and the vast army of Antiochus, with the monarch himself, were slaughtered in one day, scarce a single person escaping to carry the news to Syria. Phrahates, elated with this success, proposed to invade Syria; but in the mean time, happening to quarrel with the Scythians, he was by them cut off with his whole army, and was succeeded by his uncle Artabanus.

6
Alliance
concluded
with the
Romans.

The new king enjoyed his dignity but a very short time, being, a few days after his accession, killed in another battle with the Scythians. He was succeeded by Pacorus I. who entered into an alliance with the Romans; and he by Phrahates III. This monarch took under his protection Tigranes the son of Tigranes the Great, king of Armenia, gave him his daughter in marriage, and invaded the kingdom with a design to place the son on the throne of Armenia; but on the approach of Pompey he thought proper to retire, and soon after solemnly renewed the treaty with the Romans.

7
Crassus re-
solves on a
war with
the Par-
thians.

Phrahates was murdered by his children Mithridates and Orodes; and soon after the former was put to death by his brother, who thus became sole master of the Parthian empire. In his reign happened the memorable war with the Romans under Crassus. This was occasioned not by any breach of treaty on the side of the Parthians, but through the shameful avarice of Crassus. The whole Roman empire at that time had been divided between Cæsar, Pompey, and Crassus; and by virtue of that partition, the eastern provinces had fallen to the lot of Crassus. No sooner was he invested with this dignity, than he resolved to carry the war into Parthia, in order to enrich himself with the spoils of that people, who were then looked upon to be very wealthy. Some of the tribunes opposed him, as the Parthians had religiously observed the treaty; but Crassus having, by the assistance of Pompey, carried every thing before him, left Rome in the year 55 B. C. and pursued his march to Brundisium, where he immediately embarked his troops, though the wind blew very high; and after a difficult passage, where he lost many of his ships, he reached the ports of Galatia.

8
Plunders
the temple
at Jerusa-
lem.

From Galatia Crassus hastened to Syria, and passing through Judea, plundered the temple at Jerusalem in his way. He then marched with as great expedition as he could to the river Euphrates, which he crossed on a bridge of boats: and, entering the Par-

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thian dominions, began hostilities. As the enemy had not expected an invasion, they were quite unprepared for resistance; and therefore Crassus over-ran all Mesopotamia; and if he had taken advantage of the consternation which the Parthians were in, might have also reduced Babylonia. But instead of this, early in the autumn, he repassed the Euphrates, leaving only 7000 foot and 1000 horse to garrison the places he had reduced; and putting his army into winter-quarters in Syria, gave himself totally up to his favourite passion of amassing money.

Early in the spring, the Roman general drew his forces out of their winter-quarters, in order to pursue the war with vigour; but, during the winter, Orodes had collected a very numerous army, and was well prepared to oppose him. Before he entered upon action, however, the Parthian monarch sent ambassadors to Crassus, in order to expostulate with him on his injustice in attacking an ally of the Roman empire; but Crassus, without attending to what they said, only returned for answer, that "they should have his answer at Seleucia."

Orodes, finding that a war was not to be avoided, divided his army into two bodies. One he commanded in person, and marched towards Armenia, in order to oppose the king of that country, who had raised a considerable army to assist the Romans. The other he sent into Mesopotamia, under the command of Surena or Surenas, a most experienced general, by whose conduct all the cities which Crassus had reduced were quickly retaken. On this some Roman soldiers who made their escape, and fled to the camp of Crassus, filled the minds of his army with terror at the accounts of the number, power, and strength, of the enemy. They told their fellow-soldiers, that the Parthians were very numerous, brave, and well disciplined; that it was impossible to overtake them when they fled, or escape them when they pursued; that their defensive weapons were proof against the Roman darts, and their offensive weapons so sharp, that no buckler was proof against them, &c. Crassus looked upon all this only as the effects of cowardice: but the common soldiers, and even many of the chief officers, were so disheartened, that Cassius, the same who afterwards conspired against Cæsar, and most of the legionary tribunes, advised Crassus to suspend his march, and consider better of the enterprise before he proceeded farther in it. But Crassus obstinately persisted in his former resolution, being encouraged by the arrival of Artabazus king of Armenia, who brought with him 6000 horse, and promised to send 10,000 cuirassiers and 30,000 foot, whenever he should stand in need of them. At the same time, he advised him by no means to march his army through the plains of Mesopotamia, but to take his route over the mountains of Armenia. He told him, that as Armenia was a mountainous country, the enemy's cavalry, in which their main strength consisted, would there be entirely useless; and besides, his army would there be plentifully supplied with all manner of necessaries: whereas, if he marched by the way of Mesopotamia, he would be perpetually harassed by the Parthian horse, and frequently be obliged to lead his army through sandy deserts, where he would be distressed for want of water and all other provisions. This salutary advice, how-

Parthia.

9
His soldiers
dishearten-
ed.

5 F

ever,

Parthia.

ever, was rejected, and Crassus entered Mesopotamia with an army of about 40,000 men.

10
Betrayed
by Abgarus
king of
Edeffa.

The Romans had no sooner crossed the Euphrates, than Cassius advised his general to advance to some of those towns in which the garrisons yet remained, in order to halt and refresh his troops: or if he did not choose to follow this advice, he said that his best way would be to march along the banks of the Euphrates to Seleucia; as by this method he would prevent the Parthians from surrounding him, at the same time that he would be plentifully supplied with provisions from his ships. Of this advice Crassus seemed to approve; but was dissuaded by Abgarus king of Edeffa, whom the Romans took for an ally, but who was in reality a traitor sent by Surenas to bring about the destruction of the Roman army.

Under the conduct of this faithless guide, the Romans entered a vast green plain divided by many rivulets. Their march proved very easy through this fine country; but the farther they advanced, the worse the roads became, insomuch that they were at last obliged to climb up rocky mountains, which brought them to a dry and sandy plain, where they could neither find food to satisfy their hunger, nor water to quench their thirst. Abgarus then began to be suspected by the tribunes and other officers, who earnestly intreated Crassus not to follow him any longer, but to retreat to the mountains; at the same time an express arrived from Artabazus, acquainting the Roman general that Orodes had invaded his dominions with a great army, and that he was obliged to keep his troops at home, in order to defend his own dominions. The same messenger advised Crassus in his master's name to avoid by all means the barren plains, where his army would certainly perish with hunger and fatigue, and by all means to approach Armenia, that they might join their forces against the common enemy. But all was to no purpose; Crassus, instead of hearkening either to the advice of the king or his own officers, first flew into a violent passion with the messengers of Artabazus, and then told his troops, that they were not to expect the delights of Campania in the most remote parts of the world.

Thus they continued their march for some days cross a desert, the very sight of which was sufficient to throw them into the utmost despair; for they could not perceive, either near them or at a distance, the least tree, plant, or brook, not so much as an hill, or a single blade of grass; nothing was to be seen all around them but huge heaps of burning sand. The Romans had scarcely got through this desert, when word was brought them by their scouts, that a numerous army of Parthians was advancing full march to attack them; for Abgarus, under pretence of going out on parties, had often conferred with Surenas, and concerted measures with him for destroying the Roman army. Upon this advice, which occasioned great confusion in the camp, the Romans being quite exhausted and tired out with their long and troublesome march, Crassus drew up his men in battalia, following at first the advice of Cassius, who was for extending the infantry as wide as possible, that they might take up the more ground, and by that means prevent the enemy from surrounding them; but Abgarus assuring the proconsul that the Parthian forces were not so nu-

merous as was represented, he changed this disposition, and believing only the man who betrayed him, drew up his troops in a square, which faced every way, and had on each side 12 cohorts in front. Near each cohort he placed a troop of horse to support them, that they might charge with the greater security and boldness. Thus the whole army looked more like one phalanx than troops drawn up in manipuli, with spaces between them, after the Roman manner. The general himself commanded in the centre, his son in the left wing, and Cassius in the right.

In this order they advanced to the banks of a small river called the *Balissus*, the sight of which was very pleasing to the soldiers, who were much harassed with drought and excessive heat. Most of the officers were for encamping on the banks of this river, or rather rivulet, to give the troops time to refresh themselves after the fatigues of so long and painful a march; and, in the mean time, to procure certain intelligence of the number and disposition of the Parthian army; but Crassus, suffering himself to be hurried on by the inconsiderate ardour of his son, and the horse he commanded, only allowed the legions to take a meal standing; and before this could be done by all, he ordered them to advance, not slowly, and halting now and then, after the Roman manner, but as fast as they could move, till they came in sight of the enemy, who, contrary to their expectation, did not appear either so numerous or so terrible as they had been represented; but this was a stratagem of Surenas, who had concealed his men in convenient places, ordering them to cover their arms, lest their brightness should betray them, and, starting up at the first signal, to attack the enemy on all sides. The stratagem had the desired effect; for Surenas no sooner gave the signal, than the Parthians, rising as it were out of the ground, with dreadful cries, and a most frightful noise, advanced against the Romans, who were greatly surprised and dismayed at that sight; and much more so, when the Parthians, throwing off the covering of their arms, appeared in shining cuirasses, and helmets of burnished steel, finely mounted on horses covered all over with armour of the same metal. At their head appeared young Surenas, in a rich dress, and was the first who charged the enemy, endeavouring, with his pikemen, to break through the first ranks of the Roman army; but finding it too close and impenetrable, the cohorts supporting each other, he fell back, and retired in a seeming confusion: but the Romans were much surprised when they saw themselves suddenly surrounded on all sides, and galled with continual showers of arrows. Crassus ordered his light-armed foot and archers to advance, and charge the enemy; but they were soon repulsed, and forced to cover themselves behind the heavy-armed foot. Then the Parthian horse, advancing near the Romans, discharged showers of arrows upon them, every one of which did execution, the legionaries being drawn up in such close order, that it was impossible for the enemy to miss their aim. As their arrows were of an extraordinary weight, and discharged with incredible force and impetuosity, nothing was proof against them. The two wings advanced in good order to repulse them, but to no effect; for the Parthians shot their arrows with as great dexterity when their backs were turned,

Parthia.

11
The battle
of Carthæ.

Parthia. as when they faced the enemy; so that the Romans, whether they kept their ground, or pursued the flying enemy, were equally annoyed with their fatal arrows.

The Romans, as long as they had any hopes that the Parthians, after having spent their arrows, would either betake themselves to flight, or engage them hand to hand, stood their ground with great resolution and intrepidity; but when they observed that there were a great many camels in their rear loaded with arrows, and that those who emptied their quivers wheeled about to fill them anew, they began to lose courage, and loudly to complain of their general for suffering them thus to stand still, and serve only as a butt to the enemy's arrows, which, they well saw, would not be exhausted till they were all killed to a man. Hereupon Crassus ordered his son to advance, at all adventures, and attack the enemy with 1300 horse, 500 archers, and 8 cohorts. But the Parthians no sooner saw this choice body (for it was the flower of the army) marching up against them, than they wheeled about, and betook themselves, according to their custom, to flight. Hereupon young Crassus, crying out as loud as he could, *They fly before us*, pushed on full speed after them, not doubting but he should gain a complete victory; but when he was at a great distance from the main body of the Roman army, he perceived his mistake; for those who before had fled, facing about, charged him with incredible fury. Young Crassus ordered his troops to halt, hoping that the enemy, upon seeing their small number, would not be afraid to come to a close fight: but herein he was likewise greatly disappointed; for the Parthians, contenting themselves to oppose his front with their heavy armed horse, surrounded him on all sides; and, keeping at a distance, discharged incessant showers of arrows upon the unfortunate Romans, thus surrounded and pent up. The Parthian cavalry, in wheeling about, raised so thick a dust, that the Romans could scarce see one another, much less the enemy: nevertheless, they found themselves wounded with arrows, though they could not perceive whence they came. In a short time, the place where they stood was all strown with dead bodies.

12
Extreme
distress of
the Ro-
mans.

Some of the unhappy Romans finding their entrails torn, and many overcome by the exquisite torments they suffered, rolled themselves in the sand with the arrows in their bodies, and expired in that manner. Others endeavouring to tear out by force the bearded points of the arrows, only made the wounds the larger and increased their pain. Most of them died in this manner; and those who outlived their companions were no more in a condition to act; for when young Crassus exhorted them to march up to the enemy, some showed him their wounded bodies, others their hands nailed to their bucklers, and some their feet pierced through and pinned to the ground: so that it was equally impossible for them either to attack the enemy or defend themselves. The young commander, therefore, leaving his infantry to the mercy of the enemy, advanced at the head of the cavalry against their heavy-armed horse. The thousand Gauls whom he had brought with him from the west, charged the enemy with incredible boldness and vigour; but their lances did little execution on men armed with cuirasses, and

horses covered with tried armour: however, they behaved with great resolution; for some of them taking hold of the enemy's spears, and closing with them, threw them off their horses on the ground, where they lay without being able to stir, by reason of the great weight of their armour; others dismounting, crept under the enemy's horses, and thrusting their swords into their bellies, made them throw their riders. Thus the brave Gauls fought, though greatly harassed with heat and thirst, which they were not accustomed to bear, till most of their horses were killed, and their commander dangerously wounded. They then thought it advisable to retire to their infantry, which they no sooner joined, than the Parthians invested them anew, making a most dreadful havoc of them with their arrows. In this desperate condition, Crassus, spying a rising ground at a small distance, led the remains of his detachment thither, with a design to defend himself in the best manner he could, till succours should be sent him from his father. The Parthians pursued him; and having surrounded him in his new post, continued showering arrows upon his men, till most of them were either killed or disabled, without being able to make use of their arms, or give the enemy proofs of their valour.

Young Crassus had two Greeks with him, who had settled in the city of Carrhæ. These, touched with compassion, at seeing so brave a man reduced to such straits, pressed him to retire with them to the neighbouring city of Ischnes, which had declared for the Romans; but the young Roman rejected their proposal with indignation, telling them, that he would rather die a thousand times than abandon so many valiant men, who sacrificed their lives for his sake. Having returned this answer to his two Greek friends, he embraced and dismissed them, giving them leave to retire and shift for themselves in the best manner they could. As for himself, having now lost all hopes of being relieved, and seeing most of his men and friends killed round him, he gave way to his grief; and, not being able to make use of his arm, which was shot through with a large barbed arrow, he presented his side to one of his attendants, and ordered him to put an end to his unhappy life. His example was followed by Censorius a senator, by Megabacchus an experienced and brave officer, and by most of the nobility who served under him. Five hundred common soldiers were taken prisoners, and the rest cut in pieces.

The Parthians, having thus cut off or taken the whole detachment commanded by young Crassus, marched without delay against his father, who, upon the first advice that the enemy fled before his son, and were closely pursued by him, had taken heart, the more because those who had remained to make head against him seemed to abate much of their ardour, the greatest part of them having marched with the rest against his son. Wherefore, having encouraged his troops, he had retired to a small hill in his rear, to wait there till his son returned from the pursuit. Young Crassus had dispatched frequent expresses to his father, to acquaint him with the danger he was in; but they had fallen into the enemy's hands, and been by them put to the sword: only the last, who had escaped with great difficulty, arrived safe, and informed

Parthia.

13
The death
of young
Crassus.

Parthia.

ed him that his son was lost if he did not send him an immediate and powerful reinforcement. This news threw Crassus into the utmost consternation; a thousand affecting thoughts rose in his mind, and disturbed his reason to such a degree, that he scarce knew what he was doing. However, the desire he had of saving his son, and so many brave Romans who were under his command, made him immediately decamp, and march to their assistance; but he was not gone far before he was met by the Parthians, who, with loud shouts, and songs of victory, gave, at a distance, the unhappy father notice of his misfortune. They had cut off young Crassus's head, and, having fixed it on the point of a lance, were advancing full speed to fall on the father. As they drew near, Crassus was struck with that dismal and affecting sight; but, on this occasion, behaved like an hero: for though he was under the deepest concern, he had the presence of mind to stifle his grief, for fear of discouraging the army, and to cry out to the dismayed troops, "This misfortune is entirely mine; the loss of one man cannot affect the victory: Let us charge, let us fight like Romans: if you have any compassion for a father who has just now lost a son whose valour you admired, let it appear in your rage and resentment against these insulting barbarians." Thus Crassus strove to reanimate his troops; but his efforts were unsuccessful: their courage was quite sunk, as appeared from the faint and languishing shout which they raised, according to custom, before the action. When the signal was given, the Parthians, keeping to their old way of fighting, discharged clouds of arrows on the legionaries, without drawing near them; which did such dreadful execution, that many of the Romans, to avoid the arrows, which occasioned a long and painful death, threw themselves, like men in despair, on the enemy's heavy-armed horse, seeking from their spears a more quick and easy kind of death. Thus the Parthians continued plying them incessantly with their arrows till night, when they left the field of battle, crying out, that they would allow the father one night to lament the death of his son.

14
Distress of
Crassus.

This was a melancholy night for the Romans. Crassus kept himself concealed from the soldiery, lying not in the general's tent, but in the open air, and on the bare ground, with his head wrapped up in his paludamentum or military cloak: and was, in that forlorn condition, says Plutarch, a great example to the vulgar, of the instability of fortune; to the wise, a still greater of the pernicious effects of avarice, temerity, and ambition. Octavius, one of his lieutenants, and Cassius, approached him, and endeavoured to raise him up and console him: but, seeing him quite sunk under the weight of his affliction, and deaf to all comfort, they summoned a council of war, composed of all the chief officers; wherein it was unanimously resolved, that they should decamp before break of day, and retire, without sound of trumpet, to the neighbouring city of Carrhæ, which was held by a Roman garrison. Agreeable to this resolution, they began their march as soon as the council broke up; which produced dreadful outcries among the sick and wounded, who, perceiving that they were to be abandoned to the mercy of the enemy, filled the camp with their complaints and lamentations: but their cries and tears,

though very affecting, did not stop the march of the others, which, indeed, was very slow, to give the stragglers time to come up. There were only 300 light horse, under the command of one Ægnatius, who pursued their march without stopping. These arriving at Carrhæ about midnight, Ægnatius, calling to the centinels on the walls, desired them to acquaint Coponius, governor of the place, that Crassus had fought a great battle with the Parthians; and, without saying a word more, or letting them know who he was, continued his march with all possible expedition to the bridge of Zeugma; which he passed, and by that means saved his troops, but was much blamed for abandoning his general.

However, the message he sent to Coponius was of some temporary service to Crassus. For that commander, wisely conjecturing, from the manner in which the unknown person had given him that intelligence, that some misfortune had befallen Crassus, immediately ordered his garrison to stand to their arms; and, marching out, met Crassus, and conducted him and his army into the city: for the Parthians, though informed of his flight, did not offer to pursue him, observing therein the superstitious custom which obtained among them and the Persians, not to fight in the night; but when it was day, they entered the Roman camp, and having put all the wounded, to the number of 4000, to the sword, dispersed their cavalry all over the plain, in pursuit of the fugitives. One of Crassus's lieutenants, named Vargunteius, having separated in the night from the main body of the army, with four cohorts, missed his way, and was overtaken by the enemy; at whose approach he withdrew to a neighbouring hill, where he defended himself, with great valour, till all his men were killed, except 20, who made their way through the enemy sword in hand, and got safe to Carrhæ: but Vargunteius himself lost his life on this occasion.

In the mean time Surenas, not knowing whether Crassus and Cassius had retired to Carrhæ, or chosen a different route; in order to be informed of the truth, and take his measures accordingly, dispatched a messenger, who spoke the Roman language, to the city of Carrhæ, enjoining him to approach the walls, and acquaint Crassus himself, or Cassius, that the Parthian general was inclined to enter into a treaty with them, and demanded a conference. Both the proconsul and his quæstor Cassius spoke from the walls with the messenger; and, accepting the proposal with great joy, desired that the time and place for an interview might be immediately agreed upon. The messenger withdrew, promising to return quickly with an answer from Surenas: but that general no sooner understood that Crassus and Cassius were in Carrhæ, than he marched thither with his whole army; and, having invested the place, acquainted the Romans, that if they expected any favourable terms, they must deliver up Crassus and Cassius to him in chains. Hereupon a council of the chief officers being summoned, it was thought expedient to retire from Carrhæ that very night, and seek for another asylum. It was of the utmost importance that none of the inhabitants of Carrhæ should be acquainted with their design till the time of its execution; but Crassus, whose whole conduct evidently shows that he was blinded, as Dio Cassius observes,

by

15
Surenas
pretends
to confer
with Cras-
sus.

Parthia. by some divinity, imparted the whole matter in confidence to one Andromachus, choosing him for his guide, and relying injudiciously on the fidelity of a man whom he scarce knew. Andromachus immediately acquainted Surenas with the design of the Romans; promising at the same time, as the Parthians did not engage in the night, to manage matters so, that they should not get out of his reach before day-break. Pursuant to his promise, he led them through many windings and turnings, till he brought them into deep marshy grounds, where the infantry were up to the knees in mire. Then Crassus, suspecting that their guide had led them into those bogs with no good design, refused to follow him any longer; and, returning to Carrhæ, took his route towards Syria, which he reached with 500 horse. Octavius, with 5000 men under his command, being conducted by trusty guides, gained the mountains called by Plutarch and Appian *Sinnaci*, and there intrenched himself before break of day.

As for Crassus, he was still entangled in the marshes, when Surenas, at the rising of the sun, overtook him, and invested him with his cavalry. The proconsul had with him four cohorts, and a small body of horse; and with these he gained, in spite of all opposition, the summit of another hill within 12 furlongs of Octavius; who, seeing the danger that threatened his general, flew to his assistance, first with a small number of his men, but was soon followed by all the rest, who, being ashamed of their cowardice, quitted their post, tho' very safe, and, charging the Parthians with great fury, disengaged Crassus, and obliged the enemy to abandon the hill. Upon the retreat of the enemy, they formed themselves into an hollow square; and placing Crassus in the middle, made a kind of rampart round him with their bucklers, resolutely protesting, that none of the enemy's arrows should touch their general's body, till they were all killed fighting in his defence. Surenas, loth to let so fine a prey escape, surrounded the hill, as if he designed to make a new attack: but, finding his Parthians very backward, and not doubting but the Romans, when night came on, would pursue their march, and get out of his reach, he had recourse again to artifice; and declared before some prisoners, whom he soon after set at liberty, that he was inclined to treat with the proconsul of a peace; and that it was better to come to a reconciliation with Rome, than to sow the seeds of an eternal war, by shedding the blood of one of her generals.

Agreeable to this declaration, Surenas, as soon as the prisoners were released, advanced towards the hill where the Romans were posted, attended only by some of his officers, and, with his bow unbent, and open arms, invited Crassus to an interview. So sudden a change seemed very suspicious to the proconsul; who therefore declined the interview, till he was forced, by his own soldiers, to intrust his life with an enemy whose treachery they had all experienced; for the legionaries flocking round him, not only abused him in an outrageous manner, but even menaced him if he did not accept of the proposals made him by the Parthian general. Seeing, therefore, that his troops were ready to mutiny, he began to advance, without arms or guards, towards the enemy, after having called the

gods and his officers to witness the violence his troops offered him; and intreated all who were present, but especially Octavius and Petronius, two of the chief commanders, for the honour of Rome their common mother, not to mention, after his death, the shameful behaviour of the Roman legionaries. Octavius and Petronius could not resolve to let him go alone; but attended him down the hill, as did likewise some legionaries, keeping at a distance. Crassus was met at the foot of the hill by two Greeks; who, dismounting from their horses, saluted him with great respect: and desired him, in the Greek tongue, to send some of his attendants, who might satisfy him that Surenas, and those who were with him, came without arms. Hereupon Crassus sent two brothers, of the Roscian family; but Surenas, having caused them to be seized, advanced to the foot of the hill, mounted on a fine horse, and attended by the chief officers of his army. Crassus, who waited for the return of his two messengers, was surprised to see himself prevented by Surenas in person, when he least expected it. The Parthian general, perceiving, as he approached Crassus, that he was on foot, cried out, in a seeming surprise, "What do I see? a Roman general on foot, and we on horseback! Let an horse be brought for him immediately." "You need not be surprised (replied Crassus); we are come only to an interview, each after the custom of his country." "Very well (answered Surenas), there shall be henceforth a lasting peace between king Orodes and the people of Rome: but we must sign the articles of it on the banks of the Euphrates; for you Romans do not always remember your conventions." Crassus would have sent for an horse: but a very stately one, with a golden bit, and richly caparisoned, was brought to him by a Parthian; which Surenas presenting to him, "Accept this horse from my hands (said he), which I give you in the name of my master king Orodes." He had scarce uttered these words, when some of the king's officers, taking Crassus by the middle, set him upon the horse, which they began to whip with great violence before them in order to make him quicken his pace. Octavius, offended at this insult, took the horse by the bridle; Petronius, and the few Romans who were present, seconded him, and flocking all round Crassus, stopped his horse. The Parthians endeavoured to repulse them, and clear the way for the proconsul; whereupon they began to jostle and push one another with great tumult and disorder. At last, Octavius, drawing his sword, killed one of the king's grooms; but, at the same time, another coming behind Octavius, with one blow laid him dead at his feet. Both parties fought with great resolution, the Parthians striving to carry off Crassus, and the Romans to rescue him out of their hands. In this scuffle most of the Romans who came to the conference were killed; and, among the rest, Crassus himself, but whether by a Ro-

*Parthia.*16
Crassus
killed.

man or a Parthian is uncertain. Upon his death, the rest of the army either surrendered to the enemy, or, dispersing in the night, were pursued, and put to the sword. The Romans lost in this campaign at least 30,000 men; of which 20,000 were killed, and 10,000 taken prisoners.

When the battle of Carrhæ was fought, king Orodes was in Armenia, where he had made peace with Artabazus.

Parthia. bazus. While the two kings were solemnizing their new alliance with expensive and public feasts, Syllaces, or Syllaces, a Parthian officer, whom Surenas had sent with the news of his late victory, and the head of Crassus as a proof of it, arrived in the capital of Armenia. The transports of joy which Orodes felt at this sight, and these news, are not to be expressed; and the lords of both kingdoms, who attended their sovereigns, raised loud and repeated shouts of joy. Syllaces was ordered to give a more particular and distinct account of that memorable action; which when he had done, Orodes commanded melted gold to be poured into Crassus's mouth; reproaching him thereby with avarice, which had been always his predominant passion.

17 Surenas put to death by Orodes.

Surenas did not long enjoy the pleasure of his victory; for Orodes, jealous of his power and authority among the Parthians, soon after caused him to be put to death. Pacorus, the king's favourite son, was put at the head of the army; and, agreeable to his father's directions, invaded Syria: but he was driven out from thence with great loss by Cicero and Cassius, the only general who survived the defeat of Crassus. After this we find no mention of the Parthians, till the time of the civil war between Cæsar and Pompey, when the latter sent ambassadors to solicit succour against his rival. This Orodes was willing to grant, upon condition that Syria was delivered up to him; but as Pompey would not consent to such a proposal, the succours were not only denied, but, after the battle of Pharsalia, he put Lucius Hir-tius in irons, whom Pompey had again sent to ask assistance, or at least to desire leave to shelter himself in the Parthian dominions.

18 War commenced against the Parthians by Mark Antony.

Cæsar is said to have meditated a war against the Parthians, which in all probability would have proved fatal to them. His death delivered them from this danger. But, not long after, the eastern provinces, being grievously oppressed by Mark Antony, rose up in arms; and having killed the tax-gatherers, invited the Parthians to join them, and drive out the Romans. They very readily accepted the invitation, and crossed the Euphrates with a powerful army under the command of Pacorus and Labienus a Roman general of Pompey's party. At first they met with great success, over-ran all Asia Minor, and reduced all the countries as far as the Hellespont and the Egæan Sea, subduing likewise Phœnicia, Syria, and even Judæa. They did not however long enjoy their new conquests: for being elated with their victories, and despising the enemy, they engaged Ventidius, Antony's lieutenant, before Labienus had time to join them, and were utterly defeated. This so disheartened Labienus's army, that they all abandoned him; and he himself, being thus obliged to wander from place to place in disguise, was at last taken and put to death at Cyprus. Ventidius pursuing his advantage, gained several other victories; and at last entirely defeated the Parthian army under Pacorus, cutting almost the whole of them in pieces, and the prince himself among the rest. He did not, however, pursue this last victory as he might have done; being afraid of giving umbrage to Antony, who had already become jealous of the great honour gained by his lieutenant. He therefore contented him-

19 Pacorus defeated and killed by Ventidius.

self with reducing those places in Syria and Phœnicia which the Parthians had taken in the beginning of the war, until Antony arrived to take the command of the army upon himself.

Orodes was almost distracted with grief on receiving the dreadful news of the loss of his army and the death of his favourite son. However, when time had restored the use of his faculties, he appointed Phrahates, the eldest, but the most wicked, of all his children, to succeed him in the kingdom, admitting him at the same time to a share of the sovereign authority with himself. The consequence of this was, that Phrahates very soon attempted to poison his father with hemlock. But this, contrary to expectation, proving a cure for the dropsy, which an excess of grief had brought upon the king, the unnatural son had him stifled in bed; and soon after not only murdered all his own brethren, who were 30 in number, but cut off all the rest of the royal family, not sparing even his own eldest son, lest the discontented Parthians should place him, as he was already of age, on the throne.

20 Orodes murdered.

Many of the chief lords of Parthia being intimidated by the cruelty of Phrahates, retired into foreign countries: and among these was one Monæses, a person of great distinction, as well as skill and experience in war. This man, having fled to Antony, soon gained his confidence, and was by him easily prevailed upon to engage in a war against his countrymen. But Phrahates, justly dreading the consequences of such a person's defection, sent a solemn embassy to invite him home on such terms as he should think fit to accept: which greatly provoked Antony; though he did not hinder him from returning, lest others should thereby be discouraged from coming over to him. He therefore dismissed him with great civility, sending ambassadors at the same time to Phrahates to treat of a peace. Thus he hoped to divert the Parthian monarch's attention from making the necessary preparations for war, and that he should be able to fall upon him in the spring when he was in no condition to make resistance. But herein he was greatly disappointed; for on his arrival at the Euphrates, which he intended to pass, and enter the Parthian dominions on that side, he found all the passes so well guarded, that he thought proper to enter Media, with a design first to reduce that country, and then to enter Parthia.

This plan had been suggested to him by Artabazus king of Armenia, who in the end betrayed him; for instead of conducting the army the straight way from Zeugma on the Euphrates, to the Araxes which parted Media from Armenia, and which was about 500 miles distant from the place whence he first set out, Artabazus led them over rocks and mountains so far about, that the army had marched above 1000 miles before they reached the borders of Media, where they intended to begin the war. Thus they were not only greatly fatigued, but had not sufficient time, the year being far spent, to put in execution the design on which they had come. However, as Antony was impatient to get back to Cleopatra, he left behind him most of the baggage of the army, and 300 wag-gons loaded with battering rams and other military engines for sieges; appointing Statianus, one of his lieutenants, with a body of 10,000 men, to guard them, and to bring them, by slower marches, after the army.

21 Antony betrayed by Artabazus king of Armenia.

Parthia.

22
Ten thou-
sand Ro-
mans cut
off.

army. With the rest of the forces he marched more than 300 miles before the rest, without allowing his men any respite till he arrived at Praaspa or Phrahata, the capital of Media, which he immediately invested. But the Parthians, well knowing that he could not make any progress without his military machines, passed by his army, in order to attack Statianus; which they did with such success, that the body commanded by him were all to a man cut off, and all their military engines taken, among which was a battering ram 80 feet long.

Antony, notwithstanding this disaster, continued the siege of Praaspa; but was daily harassed by sallies of the garrison from within, and the enemy's army without. At last he began to think of a retreat when his provisions were almost exhausted, finding it impossible to become master of the city. But as he was to march 300 miles through the enemy's country, he thought proper first to send ambassadors to the Parthian monarch, acquainting him that the Roman people were willing to allow him a peace, provided he would restore the standards and prisoners taken at Carrhæ. Phrahates received the ambassadors, sitting on a golden throne; and, after having bitterly inveighed against the avarice and unbounded ambition of the Romans, told them that he would not part with the standards and prisoners; but that if Antony would immediately raise the siege of Praaspa, he would suffer him to retire unmolested.

23
Antony
leaves Par-
thia in
great dis-
tress.

Antony, who was reduced to great straits, no sooner received this answer than he broke up the siege, and marched towards Armenia. However, Phrahates was not so good as his word; for the Romans were attacked by the enemy no fewer than 18 times on their march, and were thrice in the utmost danger of being cut off. A famine also raged in the Roman army; upon which they began to desert to the enemy; and indeed Antony would probably have been left by himself, had not the Parthians, in a very cruel as well as impolitic manner, murdered all those who fled to them in flight of the rest. At last, after having lost 32,000 men, and being reduced to such despair that he was with difficulty prevented from laying violent hands on himself, he reached the river Araxes; when his men, finding themselves out of the reach of the enemy, fell down on the ground, and kissed it with tears of joy.

Antony was no sooner gone, than the kings of Media and Parthia quarrelled about the booty they had taken; and after various contests Phrahates reduced all Media and Armenia. After this, being elated with his conquests, he oppressed his subjects in such a cruel and tyrannical manner, that a civil war took place; in which the competitors were alternately driven out and restored, till the year 50, when one Vologeses, the son of Gotarzes, a former king, became peaceable possessor of the throne. He carried on some wars against the Romans, but with very indifferent success, and at last gladly consented to a renewal of the ancient treaties with that powerful people.

24
Parthia
subdued
by Tra-
jan.

From this time the Parthian history affords nothing remarkable till the reign of the emperor Trajan; when the Parthian king, by name *Cosdroes*, infringed the treaty with Rome, by driving out the king of Armenia. Upon this Trajan, who was glad of any pre-

tence to quarrel with the Parthians, immediately hastened into Armenia. His arrival there was so sudden and unexpected, that he reduced almost the whole country without opposition; and took prisoner Parthamasiris, the king whom the Parthians had set up. After this he entered Mesopotamia, took the city of Nisibis, and reduced to a Roman province the whole of that wealthy country.

Parthia.

Early in the spring of the following year, Trajan, who had kept his winter quarters in Syria, took the field again; but was warmly opposed by Cosdroes. He found him encamped on the banks of the Euphrates, with a design to dispute his passage: which he did with such vigour, that the emperor, after having several times attempted to ford that river, and been always repulsed with great slaughter, was obliged to cause boats to be built on the neighbouring mountains, which he privately conveyed from thence on carriages to the water side; and having in the night-time formed a bridge with them, he passed his army the next day; but not without great loss and danger, the Parthians harassing his men the whole time with incessant showers of arrows, which did great execution. Having gained the opposite bank, he advanced boldly into Assyria, the Parthians flying everywhere before him, and made himself master of Arbela. Thence he pursued his march; subduing, with incredible rapidity, countries where the Roman standard had never been displayed before. Babylonia, or the province of Babylon, voluntarily submitted to him. The city itself was, after a vigorous resistance, taken by storm; by which means he became master of all Chaldea and Assyria, the two richest provinces of the Parthian empire. From Babylon he marched to Ctesiphon, the metropolis of the Parthian monarchy; which he besieged, and at last reduced. But as to the particulars of these great conquests, we are quite in the dark; this expedition, however glorious to the Roman name, being rather hinted at than described, by the writers of those times. While Trajan was thus making war in the heart of the enemy's country, Cosdroes, having recruited his army, marched into Mesopotamia, with a design to recover that country, and cut off all communication between the Roman army and Syria. On his arrival in that province, the inhabitants flocked to him from all parts; and most of the cities, driving out the garrisons left by Trajan, opened their gates to him. Hereupon the emperor detached Lucius and Maximus, two of his chief commanders, into Mesopotamia, to keep such cities in awe as had not revolted, and to open a communication with Syria. Maximus was met by Cosdroes; and having ventured a battle, his army was entirely defeated, and himself killed. But Lucius being joined by Euricius and Clarius, two other commanders sent by Trajan with fresh supplies, gained considerable advantages over the enemy, and retook the cities of Nisibis and Seleucia, which had revolted.

And now Trajan, seeing himself possessed of all the best and most fruitful provinces of the Parthian empire, but at the same time being well apprised that he could not, without a vast expence, maintain his conquests, nor keep in subjection so fierce and warlike a people at such a distance from Italy; resolved to set over them a king of his own choosing, who should hold the crown of him and his successors, and acknowledge

them.

Parthia.

25
Parthianaspates
appointed
king by the
Roman em-
peror, but
soon after
driven out.

them as his lords and sovereigns. With this view he repaired to Ctesiphon; and having there assembled the chief men of the nation, he crowned one of the royal family, by name *Parthaspates*, king of Parthia, obliging all who were present to pay him their allegiance. He chose Parthaspates, because that prince had joined him at his first entering the Parthian dominions, conducted him with great fidelity, and shown on all occasions an extraordinary attachment to the Romans. Thus the Parthians were at last subdued, and their kingdom made tributary to Rome. But they did not long continue in this state of subjection: for they no sooner heard of Trajan's death, which happened shortly after, than, taking up arms, they drove Parthaspates from the throne; and recalling Cosdroes, who had retired into the country of the Hyrcanians, openly revolted from Rome. Adrian, who was then commander in chief of all the forces in the east, and soon after acknowledged emperor by the army, did not care, though he was at that time in Syria with a very numerous army, to engage in a new war with the Parthians; but contented himself with preserving the ancient limits of the empire, without any ambitious prospects of further conquests. Therefore, in the beginning of his reign, he abandoned those provinces beyond the Euphrates which Trajan had conquered; withdrew the Roman garrisons from Mesopotamia; and, for the greater safety of other places, made the Euphrates the boundary of and barrier in those parts, posting his legions along the banks of that river.

26
Unsuccessful wars of
Vologeses
with the
Romans.

Cosdroes died after a long reign, and was succeeded by his eldest son Vologeses: in whose reign the Alani breaking into Media, then subject to the Parthians, committed there great devastations; but were prevailed upon, with rich presents sent them by Vologeses, to abandon that kingdom, and return home. Upon their retreat, Vologeses, having no enemy to contend with at home, fell unexpectedly upon Armenia; surprised the legions there; and having cut them all in pieces to a man, entered Syria; defeated with great slaughter Attilius Cornelianus, governor of that province; and advanced without opposition to the neighbourhood of Antioch; putting everywhere the Romans, and those who favoured them, to the sword. Hereupon the emperor Verus, by the advice of his colleague Antoninus surnamed the *Philosopher*, leaving Rome, hastened into Syria: and having driven the Parthians out of that province, ordered Statius Priscus to invade Armenia; and Cassius, with Martius Verus, to enter the Parthian territories, and carry the war into the enemy's country. Priscus made himself master of Artaxata; and in one campaign drove the Parthians, though not without great loss on his side, quite out of Armenia. Cassius, on the other hand, having in several encounters defeated Vologeses, tho' he had an army of 400,000 men under his command, reduced, in four years time, all those provinces which had formerly submitted to Trajan, took Seleucia, burnt and plundered the famous cities of Babylon and Ctesiphon, with the stately palaces of the Parthian monarchs, and struck terror into the most remote provinces of that great empire. On his return, he lost above half the number of his forces by sickness and famine; so that, after all, the Romans, as Spartianus

N° 260.

observes, had no great reason to boast of their victories and conquests.

Parthia.

However, Verus, who had never stirred during the whole time of the war from Antioch and Daphne, took upon him the lofty titles of *Parthicus* and *Armenicus*, as if he had acquired them justly in the midst of his pleasures and debaucheries. After the revolt and death of Cassius, Antoninus the Philosopher repaired into Syria to settle the affairs of that province. On his arrival there, he was met by ambassadors from Vologeses; who having recovered most of the provinces subdued by Cassius, and being unwilling either to part with them or engage in a new war, solicited the emperor to confirm him in the possession of them, promising to hold them of him, and to acknowledge the sovereignty of Rome. To these terms Antoninus readily agreed, and a peace was accordingly concluded between the two empires; which Vologeses did not long enjoy, being soon after carried off by a distemper, and not murdered by his own subjects, as we read in Constantinus Manasses, who calls him *Belegeses*.

Upon his death, Vologeses III. the son of his brother Sanatruces, and grandson of Cosdroes, was raised to the throne. He sided with Niger against the emperor Severus: who thereupon having settled matters at home, marched with all his forces against him; and advancing to the city of Ctesiphon, whither he had retired, laid close siege to that metropolis. Vologeses made a most gallant defence; but the city, after a long siege, and much bloodshed on both sides, was at length taken by assault. The king's treasures, with his wives and children, fell into the emperor's hands: but Vologeses himself had the good luck to make his escape; which was a great disappointment to Severus, who immediately dispatched an express to acquaint the senate with the success that had attended him in his expedition against the only nation that was then formidable to Rome. But he had no sooner crossed the Euphrates, than Vologeses recovered all the provinces, except Mesopotamia, which he had reduced. These expeditions were chargeable to the Romans, and cost them much blood, without reaping any advantages from them; for as they had not sufficient forces to keep in awe the provinces they had subdued, the inhabitants, greatly attached to the family of Arsaces, never failed to return to their ancient obedience as soon as the Roman armies were withdrawn. Vologeses was soon after engaged in a war still more troublesome and destructive, with his brother Artabanus, who, encouraged by some of the discontented nobles, attempted to rob him of the crown, and place it on his own head. Vologeses gained several victories over his brother and rebellious subjects; but died before he could restore the empire to its former tranquillity.

Artabanus, who had a numerous army at his devotion, did not meet with any opposition in seizing the throne, vacant by the death of his brother, though Tiridates had a better title to it, as being his elder brother. He had scarce settled the affairs of his kingdom, when the Emperor Caracalla, desirous to signalize himself, as several of his predecessors had done, by some memorable exploit against the Parthians, sent a solemn embassy to him, desiring his daughter in marriage. Artabanus, overjoyed at this proposal,

which

Parthia.
28
Infamous
treachery
of the em-
peror Cara-
calla.

which he thought would be attended with a lasting peace between the two empires, received the ambassadors with all possible marks of honour, and readily complied with their request. Soon after, Caracalla sent a second embassy to acquaint the king that he was coming to solemnize the nuptials; whereupon Artabanus went to meet him attended with the chief of the nobility and his best troops, all unarmed, and in most pompous habits: but this peaceable train no sooner approached the Roman army, than the soldiers, on a signal given them, falling upon the king's retinue, made a most terrible slaughter of the unarmed multitude, Artabanus himself escaping with great difficulty. The treacherous Caracalla, having gained by this exploit great booty, and, as he thought, no less glory, wrote a long and boasting letter to the senate, assuming the title of *Parthicus* for this piece of treachery; as he had before that of *Germanicus*, for murdering, in like manner, some of the German nobility.

29
A desperate
battle be-
tween the
Parthians
and Ro-
mans.

Artabanus, resolving to make the Romans pay dear for their inhuman and barbarous treachery, raised the most numerous army that had ever been known in Parthia, crossed the Euphrates, and entered Syria, putting all to fire and sword. But Caracalla being murdered before this invasion, Macrinus, who had succeeded him, met the Parthians at the head of a mighty army, composed of many legions, and all the auxiliaries of the states of Asia. The two armies no sooner came in sight of each other, but they engaged with the utmost fury. The battle continued two days; both Romans and Parthians fighting so obstinately, that night only parted them, without any apparent advantage on either side; though both retired when night had put an end to the contest, crying, Victory, victory. The field of battle was covered all over with dead bodies, there being already above 40,000 killed, including both Romans and Parthians: nevertheless Artabanus was heard to say, that the battle was only begun, and that he would continue it till either the Parthians or Romans were all to a man cut in pieces. But Macrinus, being well apprised that the king came highly enraged against Caracalla in particular, and dreading the consequences which would attend the destruction of his army, sent an herald to Artabanus, acquainting him with the death of Caracalla, and proposing an alliance between the two empires. The king, understanding that his great enemy was dead, readily embraced the proposals of peace and amity, upon condition that all the prisoners who had been taken by the treachery of Caracalla should be immediately restored, and a large sum of money paid him to defray the expences of the war.

These articles being performed without delay or hesitation, Artabanus returned into Parthia, and Macrinus to Antioch.

30
The Per-
sians revolt,
and over-
throw the
Parthian
empire.

As Artabanus lost on this occasion the flower of his army, Artaxerxes, a Persian of mean descent, but of great courage and experience in war, revolting from the Parthians, prevailed on his countrymen to join him, and attempt the recovery of the sovereign power, which he said they had been unjustly deprived of, first by the Macedonians, and afterwards by the Parthians their vassals. Artabanus, upon the news of this revolt, marched with the whole strength of his kingdom to suppress it; but being met by Artaxerxes at the head of a no less powerful army, a bloody battle ensued,

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which is said to have lasted three days. At length the Parthians, though they behaved with the utmost bravery, and fought like men in despair, were forced to yield to the Persians, who were commanded by a more experienced leader. Most of their troops were cut off in the flight; and the king himself was taken prisoner, and soon after put to death at Artaxerxes's order. The Parthians, having lost in this fatal engagement both their king and their army, were forced to submit to the conqueror, and become vassals to a nation which had been subject to them for the space of 475 years.

For an account of the manners, customs, &c. of the ancient Parthians, see the article PERSIA.

PARTI, PARTIE, *Party*, or *Parted*, in heraldry, is applied to a shield or escutcheon, denoting it divided or marked out into partitions.

PARTI per pale, is when the shield is divided perpendicularly into two halves, by a cut in the middle from top to bottom.

PARTI per fess, is when the cut is across the middle from side to side.

PARTI per bend dexter, is when the cut comes from the upper corner of the shield on the right hand, and descends athwart to the opposite lower corner.

PARTI per bend sinister, is when the cut, coming from the upper left corner, descends across to the opposite lower one.

All these partitions, according to M. de la Colombiere, have their origin from the cuts and bruises that have appeared on shields after engagements; and, being proofs of the dangers to which the bearers had been exposed, they gained them esteem: for which reason they were transmitted to posterity, and became arms and marks of honour to their future families.

PARTIALITY. See *SELF-partiality* and PREJUDICE.

PARTICIPLE, in grammar, an adjective formed of a verb; so called, because it participates partly of the properties of a noun, and partly of those of a verb. See GRAMMAR.

PARTICLE, in physiology, the minute part of a body, an assemblage of which constitutes all natural bodies.

In the new philosophy, particle is often used in the same sense with atom in the ancient Epicurean philosophy, and corpuscle in the latter. Some writers, however, distinguish them; making particle an assemblage or composition of two or more primitive and physically indivisible corpuscles or atoms; and corpuscle, or little body, an assemblage or mass of several particles or secondary corpuscles. The distinction, however, is of little moment; and, as to most purposes of physics, particle may be understood as synonymous with corpuscle. Particles are then the elements of bodies: it is the various arrangement and texture of these, with the difference of the cohesion, &c. that constitute the various kinds of bodies, hard, soft, liquid, dry, heavy, light, &c. The smallest particles or corpuscles cohere with the strongest attractions, and always compose bigger particles of weaker cohesion; and many of these cohering compose bigger particles, whose vigour is still weaker; and thus on for divers successions, till the progression end in the biggest particles, whereon the operations in chemistry, and the

Parti
||
Particle.

Particle.

colours of natural bodies, depend, and which, by cohering, compose bodies of sensible bulks.

The cohesion of the particles of matter, according to the Epicureans, was effected by hooked atoms; the Aristotelians thought it managed by rest, that is, by nothing at all. But Sir Isaac Newton shows it is done by means of a certain power, whereby the particles mutually attract or tend towards each other, which is still perhaps giving a fact without the cause. By this attraction of the particles he shows that most of the phenomena of the lesser bodies are affected, as those of the heavenly bodies are by the attraction of gravity. See ATTRACTION and COHESION.

PARTICLE, a term in theology, used in the Latin church for the crumbs or little pieces of consecrated bread, called in the Greek church *μερίδες*. The Greeks have a particular ceremony, called *των μερίδων*, of the particles, wherein certain crumbs of bread, not consecrated, are offered up in honour of the Virgin, St John Baptist, and several other saints. They also give them the name of *προσφορά*, oblation. Gabriel archbishop of Philadelphia wrote a little treatise express *περι των μερίδων*, wherein he endeavours to show the antiquity of this ceremony, in that it is mentioned in the liturgies of St Chrysostom and Basil. There has been much controversy on this head between the reformed and catholic divines. Aubertin and Blondel explain a passage in the theory of Germanus patriarch of Constantinople, where he mentions the ceremony of the particles as in use in his time, in favour of the former; Messieurs de Port Royal contest the explanation; but M. Simon, in his notes on Gabriel of Philadelphia, endeavours to show that the passage itself is an interpolation, not being found in the ancient copies of Germanus, and consequently that the dispute is very ill grounded.

Organic PARTICLES, are those small moving bodies which are imperceptible without the help of glasses; for besides those animals which are perceptible to the sight, some naturalists reckon this exceedingly small species as a separate class, if not of animals properly so called, at least of moving bodies, which are found in the semen of animals, and which cannot be seen without the help of the microscope. In consequence of these observations, different systems of generation have been proposed concerning the spermatic worms of the male and the eggs of the female. In the second volume of Buffon's Natural History, several experiments are related, tending to show that those moving bodies which we discover by the help of glasses in the male semen are not real animals, but organic, lively, active, and indestructible molecules, which possess the property of becoming a new organized body similar to that from which they were extracted. Buffon found such bodies in the female as well as in the male semen; and he supposes that the moving bodies which he observed with the microscope in infusions of the germs of plants are likewise vegetable organic molecules. Needham, Wrisberg, Spallanzani, and several other writers on the animal economy, have pursued the same tract with M. de Buffon.

Some suppose that these organic molecules in the semen answer no purpose but to excite the venereal desire: but such an opinion cannot be well founded; for eunuchs, who have no seminal liquor, are neverthe-

less subject to venereal desire. With respect to the beautiful experiments which have been made with the microscope on organic molecules, M. Bonnet, that learned and excellent observer of nature, remarks that they seem to carry us to the farthest verge of the sensible creation, did not reason teach us that the smallest visible globule of seminal liquor is the commencement of another universe, which, from its infinite smallness, is beyond the reach of our best microscopes. — *Animalcules*, properly so called, must not be confounded with the wonderful organic particles of Buffon. See ANIMALCULE.

PARTICLE, in grammar, a denomination for all those small words that tie or untie others, or that express the modes or manners of words. See GRAMMAR.

PARTING, in metallurgy. See METALLURGY.

PARTING, in chemistry, an operation by which gold and silver are separated from each other. As these two metals resist equally well the action of fire and of lead, they must therefore be separated by other methods. This separation could not be effected if they were not soluble by different menstruums.

Nitrous acid, marine acid, and sulphur, which cannot dissolve gold, attack silver very easily; and therefore these three agents furnish methods of separating silver from gold, or of the operation called *parting*.

Parting by nitrous acid is the most convenient, and therefore most used, and even almost the only one employed by goldsmiths and coiners. Wherefore it is called simply *parting*. That made with the marine acid is only made by cementation, and is known by the name of *concentrated parting*. Lastly, parting by sulphur is made by fusion, which the chemists call the *dry way*, and is therefore called *dry parting*.

PARTING by Aqua fortis. Although parting by aqua fortis be easy, as we have said, it cannot however succeed or be very exact, unless we attend to some essential circumstances.

1. The gold and silver must be in a proper proportion: for if the gold was in too great quantity, the silver would be covered and guarded by it from the action of the acid.

Therefore, when essayers do not know the proportion of these two metals in the mass to be operated upon, they discover it by the following method.

They have a certain number of needles composed of gold and silver alloyed together in graduated proportions; and the alloy of each needle is known by a mark upon it. These are called *proof needles*.

When essayers want to know nearly the proportion of gold and silver in a mass, they rub this mass upon a touchstone, so as to leave a mark upon it. They then make marks upon the touchstone with some of the needles the colour of which they think comes nearest to that of the mass. By comparing the marks of these needles with the mark of the mass, they discover nearly the proportion of the gold and silver in the mass.

If this trial shows, that in any given mass the silver is not to the gold as three to one, this mass is improper for the operation of parting by aqua fortis. In this case, the quantity of silver necessary to make an alloy of that proportion must be added.

This operation is called *quartation*, probably because it reduces the gold to a fourth part of the whole mass.

2. That the parting may be exact, the nitrous acid

Particle,
Parting.

Parting. or aquafortis employed must be very pure, and especially free from mixture of vitriolic and marine acids. For if this was not attended to, a quantity of silver proportionable to these two foreign acids would be separated during the solution; and this portion of silver reduced by these acids to vitriol of silver and to luna cornea would remain mingled with the gold, which consequently would not be entirely purified by the operation.

When the metallic mass is properly allayed, it is to be reduced to plates, rolled up spirally, called cornets; or to grains. These are to be put into a matrafs, and upon them a quantity of aquafortis is to be poured, the weight of which is to that of the silver as three to two: and as the nitrous acid employed for this operation is rather weak, the solution is assisted, especially at first, by the heat of a sand bath, in which the matrafs is to be placed. When, notwithstanding the heat, no further mark of solution appears, the aquafortis charged with silver is to be decanted. Fresh nitrous acid is to be poured into the matrafs, stronger than the former, and in less quantity, which must be boiled on the residuous mass, and decanted as the former. Aquafortis must even be boiled a third time on the remaining gold, that all the silver may be certainly dissolved. The gold is then to be washed with boiling water. This gold is very pure if the operation has been performed with due attention. It is called *gold of parting*.

No addition of silver is required, if the quantity of silver of the mass is evidently much more considerable than that of the gold: persons who have not proof needles and other apparatus to determine the proportion of the alloy, may add to the gold an indeterminate quantity of silver, observing that this quantity be rather too great than too small, and so considerable as to render the mass nearly as white as silver; for a large quantity of silver is rather favourable than hurtful to the operation: It has no other inconvenience than an useless expence, as the larger the quantity is of silver the more aquafortis must be employed. We ought to attend to this fact, that the colour of gold is scarcely perceptible in a mass two-thirds of which is silver and one-third is gold; this colour then must be much less perceptible when the gold is only one-fourth part, or less, of the whole mass.

If the quantity of gold exceeds that of the silver, the mass may be exposed to the action of aqua-regia, which would be a kind of inverse parting, because the gold is dissolved in that menstruum, and the silver is not, but rather reduced to a luna cornea, which remains in form of a precipitate after the operation. But this method is not much practised, for the following reasons.

First, the gold cannot be easily separated from the aqua-regia; for if the parting has been made with an aqua-regia prepared with sal-ammoniac, or if the gold be precipitated by a volatile alkali, this gold has a fulminating quality, and its reduction requires particular operations. If the aqua-regia has been made with spirit of salt, and the precipitation effected by a fixed alkali, the gold will not then be fulminating, but the precipitation will be very slow, and probably incomplete.

Secondly, in the parting by aqua-regia, the silver is

indeed precipitated into a luna cornea, and thus separated; but this separation is not perfect, as a small quantity of luna cornea will always remain dissolved by the acids, if this solution even could be only effected by the superabundant water of these acids. Accordingly the silver is not so accurately separated from the gold by aqua-regia, as the gold is from the silver by aquafortis.

The gold, after the parting by aquafortis, is much more easily collected when it remains in small masses than when it is reduced to a powder.

When the mass has been regularly parted, that is, when it contains three parts of silver and one part of gold, we must employ, particularly for the first solution, an aquafortis so weakened that heat is required to assist the solution of the silver; by which means the solution is made gently; and the gold which remains preserves the form of the small masses before the solution. If the aquafortis employed were stronger, the parts of the gold would be disunited and reduced to the form of a powder, from the activity with which the solution would be made.

We may indeed part by aquafortis a mass containing two parts of silver to one part of gold: but then the aquafortis must be stronger; and if the solution be not too much hastened, the gold will more easily remain in masses after the operation. In both cases, the gold will be found to be tarnished and blackened, probably from what was lately called the *phlogiston* of the nitrous acid. Its parts have no adhesion together, because the silver dissolved from it has left many interstices; and the cornets or grains of this gold will be easily broken, unless they be handled very carefully. To give them more solidity, they are generally put into a test under a muffle and made red-hot; during which operation they contract considerably, and their parts are approximated. These pieces of gold are then found to be rendered much more solid, so that they may be handled without being broken. By this operation also the gold resumes its colour and lustre; and as it generally has the figure of cornets, it is called *gold in cornets*, or *grain gold*. Essayers avoid melting it, as they choose to preserve this form, which shows that it has been parted.

The gold and silver thus operated upon ought to have been previously refined by lead, and freed from all alloy of other metallic matters, so that the gold which remains should be as pure as is possible. However, as this is the only metal which resists the action of aquafortis, it might be purified by parting from all other metallic substances; but this is not generally done, for several reasons. First, because the refining by lead is more expeditious and convenient for the separation of the gold from the imperfect metals; secondly, because the silver, when afterwards separated from the aquafortis, is pure; lastly, because most imperfect metals do not remain completely and entirely dissolved in nitrous acid, from the portion of phlogiston which this acid deprives them of, the gold would be found after the parting mixed with the part of these metals which is precipitated.

The gold remaining after the parting ought to be well washed, to cleanse it from any of the solution of silver which might adhere to it; and for this purpose distilled water ought to be used, or at least water the purity

Parting. of which has been ascertained by its not forming a precipitate with a solution of silver, because such a precipitate would alter the purity of the gold.

The silver dissolved in the aquafortis may be separated either by distillation, in which case all the aquafortis is recovered very pure, and fit for another parting; or it may be precipitated by some substance which has a greater affinity than this metal with nitrous acid. Copper is generally employed for this purpose at the mint.

The solution of silver is put into copper vessels. The aquafortis dissolves the copper, and the silver precipitates. When the silver is all precipitated, the new solution is decanted, which is then a solution of copper. The precipitate is to be well washed, and may be melted into an ingot. It is called *parted silver*. When this silver has been obtained from a mass which had been refined by lead, and when it has been well washed from the solution of copper, it is very pure.

Mr Cramer observes justly in his Treatise on Essay-ing, that however accurately the operation of parting has been performed, a small portion of silver always remains united with the gold, if the parting has been made by aquafortis; or a small portion of the gold remains united with the silver, if the parting has been made by aqua-regia: and he estimates this small alloy to be from a two hundredth to a hundred and fiftieth part, which quantity may be considered as nothing for ordinary purposes, but may become sensible in accurate chemical experiments. *Chem. Dict.*

The mass of gold and silver to be parted ought previously to be granulated; which may be done by melting it in a crucible, and pouring it into a large vessel full of cold water, while at the same time a rapid circular motion is given to the water by quickly stirring it round with a stick or broom.

The vessels generally used for this operation, called *parting-glasses*, have the form of truncated cones, the bottom being commonly about seven inches wide, the aperture about one or two inches wide, and the height about 12 inches. These glass-vessels ought to have been well annealed, and chosen free from flaws; as one of the chief inconveniences attending the operation is, that the glasses are apt to crack by exposure to cold, and even when touched by the hand. Some operators secure their glasses by a coating. For this purpose they spread a mixture of quicklime flaked with beer and whites of eggs upon linen cloth, which they wrap round the lower part of the vessel, leaving the upper part uncovered, that they may see the progress of the operation; and over this cloth they apply a composition of clay and hair. Schlutter advises to put the parting-glasses containing some water, and supported by trevets, with fire under them. When the heat communicated by the water is too great, it may be diminished by adding cold water, which must be done very carefully by pouring against the sides of the pan, to prevent too sudden an application of cold to the parting-glass. The intention of this contrivance is, that the contents of the glasses, if these should break, may be received by the copper vessel. Into a glass 15 inches high, and 10 or 12 inches wide at bottom, placed in a copper-pan 12 inches wide at bottom, 15 inches wide at top, and 10 inches high, he usually put about 80 ounces of metal, with twice as much aquafortis.

Parting. The aquafortis ought to be so strong as to be capable of acting sensibly on silver when cold, but not so strong as to act violently. If the aquafortis be very strong, however pure, and if the vessels be well closed, a small quantity of the gold will be dissolved along with the silver, which is to be guarded against.

Little heat ought to be applied at the beginning, the liquor being apt to swell and rise over the vessel; but when the acid is nearly saturated, the heat may be safely increased.

When the solution ceases, which may be known by the discontinuance of the effervescence, or emission of air-bubbles, the liquor is to be poured off. If any grains appear entire, more aquafortis must be added, that all the silver may be dissolved. If the operation has been performed slowly, the remaining gold will have still the form of distinct masses, which are to receive solidity and colour by fire, in the manner directed by the author of the dictionary. If the operation has been performed hastily, the gold will have the appearance of a black mud or powder, which after five or six washings with pure water must be melted.

The silver is usually recovered by precipitating it from the aquafortis by means of copper-vessels into which the liquor is poured, or of plates of copper which are thrown along with the liquor into glass-vessels. A considerable heat is required to accelerate this precipitation. Dr Lewis says, he has observed that when the aquafortis was perfectly saturated with silver, no precipitation was occasioned by plates of copper, till a drop or two of aquafortis was added to the liquor, and then the precipitation began and continued as usual.

The precipitated silver must be well washed in boiling water, and fused with some nitre; the use of which is to scorify any cupreous particles which may adhere to the silver.

From the solution of copper in aquafortis, a blue pigment, called *verditer*, is obtained by precipitation with whiting. *Notes to Chem. Dict.*

Concentrated PARTING, also called *Parting by Cementation*, because it is actually performed by cementation, is used when the quantity of it is so great in proportion to the silver, that it cannot be separated by aquafortis. This operation is done in the following manner.

A cement is first prepared, composed of four parts of bricks powdered and sifted, of one part of green vitriol calcined till it becomes red, and of one part of common salt. The whole is very accurately mixed together, and a firm paste is made of it by moistening it with a little water or urine. This cement is called *cement royal*, because it is employed to purify gold, which is considered by chemists as the king of metals.

The gold to be cemented is to be reduced to plates as thin as small pieces of money. At the bottom of the crucible or cementing-pot, a stratum of cement, of the thickness of a finger, is to be put, which is to be covered with plates of gold; upon these another stratum of cement is to be laid, and then more plates of gold, till the crucible or pot is filled with these alternate strata of cement and of gold. The whole is then to be covered with a lid, which is to be luted with a mixture of clay and sand. This pot is to be placed in a furnace, or oven, and heated by degrees till it is moderately

Parting. moderately red, which heat is to be continued during 24 hours. The heat must not be so great as to melt the gold. The pot or crucible is then left to cool, and the gold is to be carefully separated from the cement, and boiled at different times in a large quantity of pure water. This gold is to be essayed upon a touchstone or otherwise; and if it be found not sufficiently purified, it is to be cemented a second time in the same manner.

The vitriolic acid of the bricks and of the calcined vitriol disengages the acid of the common salt during this cementation: and this latter acid dissolves the silver alloyed with the gold, and separates it by that means.

This experiment proves, that although marine acid, while it is liquid, cannot attack silver, it is nevertheless a powerful solvent of that metal. But for this purpose it must be applied to the silver in the state of vapours, extremely concentrated, and assisted with a considerable heat. All these circumstances are united in the concentrated parting.

This experiment proves also, that notwithstanding all these circumstances, which favour the action of the marine acid, it is incapable of dissolving gold.

Lastly, the marine acid in this state more effectually dissolves the silver than the nitrous acid does in the parting by aquafortis, since this operation succeeds well when the silver is in so small a proportion as that it would be protected from the action of the nitrous acid in the ordinary parting.

Instead of sea-salt, nitre may be used with equal success; because the nitrous acid is then put in a state to attack the silver, notwithstanding the quantity of gold which covers it.

Dry-Parting. Dry-parting, or parting by fusion, is performed by sulphur, which has the property of uniting easily with silver, while it does not attack gold.

This method of separating these two metals would be the cheapest, the most expeditious and convenient of any, if the sulphur could dissolve the silver, and separate it from the gold as well and as easily as nitrous acid does: but, on the contrary, we are obliged to employ a particular treatment, and a kind of concentration, to begin the union of the sulphur alloyed with gold. Then repeated and troublesome fusions must be made, in each of which we are obliged to add different intermediate substances, and particularly the metals which have the strongest affinity with sulphur, to assist the precipitation, which in that case does not give a regulus of pure gold, but a gold still alloyed with much silver, and even with a part of the precipitating metals; so that, to complete the operation, cupellation is necessary, and also parting by aquafortis.

From what we have said concerning this operation, we may perceive, that it ought not to be made but when the quantity of silver with which the gold is alloyed is so great, that the quantity of gold which might be obtained by the ordinary parting is not sufficient to pay the expences; and that it is only proper for concentrating a larger quantity of gold in a smaller quantity of silver. As this dry parting is troublesome, and even expensive, it ought not to be undertaken but on a considerable quantity of silver alloyed with gold. Accordingly Cramer, Schlutter, Schlinder, and all good chemists and artists who have given processes for the

dry-parting, recommend its use only in the above-mentioned cases. We wish that this operation could be improved: it would be much more advantageous if it could be done by two or three fusions; and if by these an exact separation could be obtained of a small quantity of gold mixed with a large quantity of silver.

Chem. Dict.

As this operation for extracting a small quantity of gold from a large quantity of silver is, notwithstanding its inconveniences, approved by Schlutter, Scheffer, and other authors, and practised in Hartz, we shall add what Dr Lewis, in his excellent History of Gold, has said upon the subject.

The most advantageous method of separating a small portion of gold from a large one of silver, appears to be by means of sulphur, which unites with and scorifies the silver without affecting the gold; but as sulphurated silver does not flow thin enough to suffer the small particles of gold diffused through it to reunite and settle at the bottom, some addition is necessary for collecting and carrying them down.

In order to the commixture with the sulphur, 50 or 60 pounds of the mixed metal, or as much as a large crucible will receive, are melted at once, and reduced into grains, by taking out the fluid matter, with a small crucible made red-hot, and pouring it into cold water stirred with a rapid circular motion. From an eighth to a fifth of the granulated metal, according as it is richer or poorer in gold, is reserved, and the rest well mingled with an eighth of powdered sulphur. The grains enveloped with the sulphur are again put into the crucible, and the fire kept gentle for some time, that the silver, before it melts, may be thoroughly penetrated by the sulphur; if the fire was hastily urged, great part of the sulphur would be dissipated, without acting upon the metal.

If to sulphurated silver in fusion pure silver be added, the latter falls to the bottom, and forms there a distinct fluid not miscible with the other. The particles of gold, having no affinity with the sulphurated silver, join themselves to the pure silver, wherever they come in contact with it, and are thus transferred from the former into the latter, more or less perfectly according as the pure silver was more or less thoroughly diffused through the mixed. It is for this use that a part of the granulated metal was reserved. The sulphurated mass being brought into perfect fusion, and kept melted for near an hour in a close covered crucible, one-third of the reserved grains is thrown in; and as soon as this is melted, the whole is well stirred, that the fresh silver may be distributed through the mixed, to collect the gold from it. The stirring is performed with a wooden rod; an iron one would be corroded by the sulphur, so as to deprive the mixed of its due quantity of sulphur, and likewise render the subsequent purification of the silver more troublesome. The fusion being continued an hour longer, another third of the unsulphurated grains is added, and an hour after this the remainder; after which the fusion is further continued for some time, the matter being stirred at least every half hour from the beginning to the end, and the crucible kept closely covered in the intervals.

The sulphurated silver appears in fusion of a dark-brown colour; after it has been kept melted for a cer-

Parting. tain time, a part of the sulphur having escaped from the top, the surface becomes white, and some bright drops of silver, about the size of pease, are perceived on it. When this happens, which is commonly in about three hours after the last addition of the reserved grains, sooner or later according as the crucible has been more or less closely covered, and the matter more or less stirred, the fire must be immediately discontinued; for otherwise more and more of the silver, thus losing its sulphur, would subside and mingle with the part at the bottom in which the gold is collected. The whole is poured out into an iron mortar greased and duly heated; or if the quantity is too large to be safely lifted at once, a part is first taken out from the top with a small crucible, and the rest poured into the mortar. The gold, diffused at first through the whole mass, is now found collected into a part of it at the bottom, amounting only to about as much as was reserved unfulphurated. This part may be separated from the fulphurated silver above it by a chisel and hammer; or more perfectly, the surface of the lower mass being generally rugged and unequal, by placing the whole mass with its bottom upwards in a crucible: the fulphurated part quickly melts, leaving unmelted that which contains the gold, which may thus be completely separated from the other. The fulphurated silver is essayed by keeping a portion of it in fusion in an open crucible till the sulphur is dissipated, and then dissolving it in aquafortis. If it should still be found to contain any gold, it is to be melted again; as much more unfulphurated silver is to be added as was employed in each of the former injections, and the fusion continued about an hour and a half.

The gold thus collected into a part of the silver may be further concentrated into a smaller part, by granulating the mass and repeating the whole process. The operation may be again and again repeated, till so much of the silver is separated, that the remainder may be parted by aquafortis without too much expence.

The foregoing process, according to Mr Schlutter, is practised at Rammelsberg in the Lower Hartz. The prevailing metal in the ore of Rammelsberg is lead: the quantity of lead is at most 40 pounds on a quintal or 100 pounds of the ore. The lead worked off on a test or concave hearth yields about 110 grains of silver, and the silver contains only a 384th part of gold; yet this little quantity of gold, amounting scarcely to a third of a grain in a hundred weight of this ore, is thus collected with profit. The author above-mentioned confines this method of separation to such silver as is poor in gold, and reckons parting with aquafortis more advantageous where the gold amounts to above a 64th of the silver: he advises also not to attempt concentrating the gold too far, as a portion of it will always be taken up again by the silver. Mr Scheffer, however, relates (in the Swedish Memoirs for the year 1752), that he has by this method brought the gold to perfect fineness; and that he has likewise collected all the gold which the silver contained; the silver of the last operations, which had taken up a portion of the gold, being reserved to be worked over again with a fresh quantity of gold-holding silver. The fulphurated silver is purified by continuing it in fusion for some time with a large surface exposed to the air; the

sulphur gradually exhales, and leaves the silver entire.

PARTISAN, in the art of war, a person dexterous in commanding a party; who, knowing the country well, is employed in getting intelligence, or surprising the enemy's convoy, &c. The word also means an officer sent out upon a party, with the command of a body of light troops, generally under the appellation of the partisan's corps. It is also necessary that this corps should be composed of infantry, light-horse, and hussars.

PARTNERSHIP, is a contract among two or more persons, to carry on a certain business, at their joint expence, and share the gain or loss which arises from it. Of this there are four kinds.

I. Occasional joint trade, where two or more merchants agree to employ a certain sum in trade, and divide the gain or loss so soon as the adventure is brought to an issue. This kind of contract being generally private, the parties concerned are not liable for each other. If one of them purchase goods on trust, the furnisher, who grants the credit through confidence in him alone, has no recourse, in case of his insolvency, against the other partners. They are only answerable for the share of the adventure that belongs to the insolvent partner.

If it be proposed to carry the adventure farther than originally agreed on, any partner may withdraw his interest; and if it cannot be separated from the others, may insist that the whole shall be brought to an issue.

II. Standing companies, which are generally established by written contract between the parties, where the stock, the firm, duration, the division of the gain or loss, and other circumstances, are inserted.

All the partners are generally authorised to sign by the firm of the company, though this privilege may be confined to some of them by particular agreement. The firm ought only to be subscribed at the place where the copartnery is established. If a partner has occasion, when absent, to write a letter relating to their affairs, he subscribes his own name on account of the company. When the same partners carry on business at different places, they generally choose different firms for each. The signature of each partner is generally sent to new correspondents; and when a partner is admitted, although there be no alteration in the firm, his signature is transmitted, with an intimation of the change in the copartnery to all their correspondents. Houses that have been long established, often retain the old firm, though all the original partners be dead or withdrawn.

The powers of each partner are, in general, discretionary; but they ought not to act, in matters of importance, without consulting together, when there is an opportunity. No partner is liable to make good the loss arising from his judging wrong in a case where he had authority to act. If he exceeds his power, and the event prove unsuccessful, he must bear the loss; but if it prove successful, the gain belongs to the company: yet if he acquaints the company immediately of what he has done, they must either acquiesce therein, or leave him the chance of gain, as well as the risk of loss.

All debts contracted under the firm of the company are

Partnership.

are binding on the whole partners, though the money was borrowed by one of them for his private use, without the consent of the rest. And if a partner exceeds his power, the others are nevertheless obliged to implement his engagements; though they may render him responsible for his misbehaviour.

Although the sums to be advanced by the partners be limited by the contract, if there be a necessity for raising more money to answer emergencies or pay the debts of the company, the partners must furnish what is necessary, in proportion to their shares.

A debt to a company is not cancelled by the private debts of the partner; and when a partner becomes insolvent, the company is not bound for his debts beyond the extent of his share.

The debts of the company are preferable, on the company's effects, to the private debts of the partners.

Partnership is generally dissolved by the death of a partner; yet, when there are more partners than two, it may, by agreement, subsist among the survivors. Sometimes it is stipulated, that, in case of the death of a partner, his place shall be supplied by his son, or some other person condescended on. The contract ought to specify the time and manner in which the surviving partners shall reckon with the executors of the deceased for his share of the stock, and a reasonable time allowed for that purpose.

When partnership is dissolved, there are often outstanding debts that cannot be recovered for a long time, and effects that cannot easily be disposed of. The partnership, though dissolved in other respects, still subsists for the management of their outstanding affairs; and the money arising from them is divided among the partners, or their representatives, when it is recovered. But as this may protract the final settlement of the company's affairs to a very inconvenient length, other methods are sometimes used to bring them to a conclusion, either in consequence of the original contract, or by agreement at the time of dissolution. Sometimes the debts and effects are sold by auction; sometimes they are divided among the partners; and when there are two partners, one divides them into shares, as equal as possible, and the other chooses either share he thinks best.

If a partner withdraws, he continues responsible for his former partners till it be publicly known that he hath done so. A deed of separation, registered at a public office, is sufficient presumption of such notoriety.

III. Companies, where the business is conducted by officers. There are many companies of this kind in Britain, chiefly established for purposes which require a larger capital than private merchants can command. The laws with respect to these companies, when not confirmed by public authority, are the same as the former, but the articles of their agreement usually very different. The capital is condescended on; and divided into a certain number of shares, whereof each partner may hold one or more, but is generally restricted to a certain number. Any partner may transfer his share; and the company must admit his assignee as a partner. The death of the partners has no effect on the company. No partner can act personally in the affairs of the company; but the execution of their bu-

siness is intrusted to officers, for whom they are responsible; and, when the partners are numerous, the superintendency of the officers is committed to directors chosen annually, or at other appointed times, by the partners.

IV. Companies incorporated by authority. A royal charter is necessary to enable a company to hold lands, to have a common seal, and enjoy the other privileges of a corporation. A charter is sometimes procured, in order to limit the risk of the partners: for, in every private company, the partners are liable for the debts, without limitation; in incorporated societies, they are only liable for their shares in the stock of the society. The incorporation of societies is sometimes authorised by act of parliament; but this high authority is not necessary, unless for conferring exclusive privileges.

Mr Paley says, "I know of nothing upon the subject of partnership that requires explanation, but how the profits are to be divided where one partner contributes money and the other labour, which is a common case."

"Rule. From the stock of the partnership deduct the sum advanced, and divide the remainder between the moneyed partner and the labouring partner, in the proportion of the interest of the money to the wages of the labour, allowing such a rate of interest as money might be borrowed for upon the same security, and such wages as a journeyman would require for the same labour and trust."

"Example. A advances 1000l. but knows nothing of the business; B produces no money, but has been brought up to the business, and undertakes to conduct it. At the end of the year the stock and effects of the partnership amount to 1200l. consequently there are 200l. to be divided. Now nobody would lend money upon the event of the business succeeding, which is A's security, under 6 per cent. therefore A must be allowed 60l. for the interest of his money. B, before he engaged in the partnership, earned 30l. a year in the same employment: his labour, therefore, ought to be valued at 30l. and the 200l. must be divided between the partners in the proportion of 60 to 30; that is, A must receive 133l. 6s. 8d. and B 66l. 13s. 4d. If there be nothing gained, A loses his interest, and B his labour, which is right. If the original stock be diminished, by this rule B loses only his labour as before; whereas A loses his interest and part of the principal: for which eventual disadvantage A is compensated, by having the interest of his money computed at 6 per cent. in the division of the profits when there is any. It is true, that the division of the profit is seldom forgotten in the constitution of the partnership; and is therefore commonly settled by express agreement; but these agreements, to be equitable, should pursue the principle of the rule here laid down. All the partners are bound by what any one of them does in the course of the business; for, *quoad hoc*, each partner is considered as an authorised agent for the rest."

PARTRIDGE, in ornithology. See TETRAO.

The partridge is so valuable at the table, that a great many ways of taking it have been invented by sportsmen, all of which succeed from the natural folly and timidity of the animal.

The places partridges delight in most are corn-fields, especially

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Partridge. especially whilst the corn grows, for under that cover they shelter and breed: neither are those places unfrequented by them when the corn is cut down, by reason of the grain they find there, especially in wheat-stubble, the height of which they delight in, being to them as a covert or shelter. When the wheat-stubble is much trodden by men or beasts, they then betake themselves to the barley-stubble, provided it be fresh and untrodden; and they will, in the furrows, amongst the clots, branches, and long grass, hide both themselves and coveys, which are sometimes 20 in number, nay 30, in a covey.

When the winter-season is arrived, and the stubble-fields are ploughed up, or over-soiled with cattle, partridges resort into the upland meadows, and lodge in the dead-grass, or fog under hedges, amongst mole-hills, or under the roots of trees; sometimes they resort to coppices and under-woods, especially if any corn-fields are adjacent, or where there is grown broom, brakes, fern, &c.

In the harvest-time, when every field is full of men and cattle, in the day-time they are found in the fallow-fields which are next adjoining to the corn-fields, where they lie lurking till evening or morning, and then they feed among the sheaves of corn.

When their haunts are known, according to the situation of the country and season of the year, the next care must be to find them out in their haunts, which is done several ways. Some do it by the eye only; and this art can never be taught, but learned by frequent experience, the colour of the birds being so like that of the earth at a distance, that no eye but a very conversant one could distinguish them. When they are once seen, the business is to keep the eye upon them, and then to keep in continual motion. They are a very lazy bird, and by this means will let a person almost tread upon them; though if the person stands still to eye them, they will rise immediately though they be at a considerable distance.

Another method of discovering them is, by going to their haunts very early in the morning, or at the close of the evening, which is called the *jucking-time*. The noise of the cock partridge is to be attended to at this time, and is very loud and earnest. The hen will soon come up to the cock after her making the noise, which she does by way of answer; and when they are got together, their chattering will discover them. Thus they may always be found at these times. But there is yet a better method of finding this bird, which is by the *call*. The business, in order to have success in this way, is carefully to learn the notes of the partridge, and be able to imitate all the several sounds. When perfect in this, the person is to go to the haunts morning and evening, and placing himself in some place where he can see the birds without being seen by them, he is to listen to their calling; and when they are heard, he is to answer in the same notes, doubling again as they do: by continuing this, they may be brought so near, that the person lying down on his back may count their whole number. Having in this manner found where the birds are, the next care is to catch them.

They are so foolish, that it is extremely easy to take them in *nets*. In order to this, there needs no more than the going out, provided with two or three nets,

with meshes somewhat smaller than those of the pheasant nets, and walking round about the covey, a net is to be fixed so as to draw over them, on pulling a line at a distance. All this may be easily done; for so long as the sportsman continues moving about, and does not fix his eye too intensely upon them, they will let him come near enough to fix the net without moving. If they lie so straggling, that one net will not cover them, then two or three must be fixed in the same manner. The sportsman may then draw the nets over them, and they will often lie still with the nets upon them till he comes up to fright them; then they will rise, and be entangled in the net.

A second method of taking them is with *bird-limes*; this is done by means of wheat-straws. These must be large, and cut off between knot and knot; they must be well limed with the best and strongest bird-lime, and the sportsman must carry a great number out with him. Having found a field where there are partridges, he is to call; and if they answer, he is then to stick up the limed straws in rows across two or three lands, and going backward, call again to them, leading them on in the road where the straws are: they will follow one another like a flock of chickens, and come out to the call; and will in their way run upon the straws, and liming themselves they will daub one another by crowding together, so that very few of them will be able to escape.

But there is yet a pleasanter way of taking them than this, that is, by *driving* of them. In order to this, an engine is to be made of canvas stuffed with straw, to represent a horse; this horse and nets are to be taken to the haunts of the partridges, and the nets being placed slanting or stopwise in the lower part of the field, the sportsman is to take the wind in his back and get above them, driving them downwards; his face is to be covered with something green or blue, and placing the horse before him, he is to go towards them slowly and gently; and by this means they will be raised on their legs, but not on their wings, and will run before the horse into the nets. If in the way they go into a wrong path, the horse is to be moved to face them; and they will be thus driven back again, and driven every way the sportsman pleases.

The partridges of Abyssinia, we are told, are very large, being as big as *capons*.

In Jeremiah xvii. 11. we have the following curious passage: "As the partridge sitteth on eggs, and hatcheth them not; so he that getteth riches, and not by right, shall leave them in the midst of his days, and at his end shall be a fool;" which is explained by Mr Pool as follows. It is no wonder if we cannot be certain as to the sense of these words, so far as they concern natural history, when we are not certain what bird it is to which this doth relate. We translate it *partridge*: others will have it to be a *cuckoo*: but certain it is, that it is the same word which we translate *partridge* (1 Sam. xxvi. 20.); and cuckoos use not to be much hunted after. How the partridge is said to sit on eggs and hatch them not, is yet a greater question. It may be occasioned so many ways, *viz.* either sitting upon wind-eggs; or being killed before the eggs are hatched; or having its eggs destroyed by the male partridge, or by some dog or other vermin; or, its nest being found, having her eggs taken from her, that it is hard

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to determine which the prophet means. Of all others, I least approve of that which Jerom makes the sense, though the thing be true (if we may believe Cassiodorus and several natural historians, Aldrovandus, &c.), that partridges have such a love and desire to hatch young ones, that having lost their own eggs, they will steal the eggs of other partridges, and hatch them; which being hatched, the young ones knowing the cry of their proper dams, hearing them call, leave the partridge that hatched them (which is one thing quoted by Aldrovandus, to show the sagacity of that bird); but if this were the sense, the words would be, 'as the partridge sitteth on eggs, and hatcheth them, but enjoyeth them not;' whereas they are, 'hatcheth them not;' that is, having lost them, either by some man that hath taken them from her, or by some vermin or wild beast." *Pool's Annot. in Loc.*

The words in the original are, *וְהָיָה וְלֹא יִלְדָּה קֶרֶן*, which the Septuagint translate *φωνήν περιδίζ*, &c. "The partridge cried; it gathered together what it had not produced;" and some translate the Hebrew, "The partridge lays many eggs, but does not hatch them all." Le Clerc, upon the authority of Bocchart, understands the Hebrew word *kore* here to signify a woodcock. Le Clerc's translation is as follows: *Ruslicula ova colligit, sed non parit; facit sibi divitias, sed sine jure, mediis suis diebus eas relinquit, atque ad extremum stulta est.*

PARTURITION, the art of bringing forth or being delivered of young. See MIDWIFERY.

PARTY, in a military sense, a small number of men, horse, or foot, sent upon any kind of duty; as into an enemy's country to pillage, to take prisoners, and to oblige the country to come under contribution. Parties are often sent out to view the roads and ways, get intelligence, seek forage; to reconnoitre, or amuse the enemy upon a march: they are also frequently sent upon the flanks of an army or regiment, to discover the enemy if near, and prevent surprise or ambushade.

PARU, in natural history, the name of a very singular American fish. It is broad, flat, and rounded; not very thick, and usually of about five or six inches long, and more than four broad. It has six fins, one large and long, one on the back, and another on the belly behind the anus; each of these reaches to the tail, and has toward the end a long string or cord, made of a single filament, that on the back fin being longer than that on the belly; behind the gills it has also two fins of two fingers breadth long and one broad; and two others on the belly, which are very narrow; its head is small, and its mouth elevated and small, and furnished with small teeth; its scales are of a moderate size, and are half black and half yellow, so that the fish appears of a black colour, variegated with yellow half moons; its gills, and the beginning of its fins, are also yellow; and it has, on each side near the head, a yellow spot; it is eatable.

PARVICH, an island near Dalmatia, and one of the best peopled and most considerable of those which are under the jurisdiction of Sibenico. It contains a great number of fishermen, and a considerable number of persons who give themselves up to agriculture. It contains many Roman antiquities, which evidently show that it was a Roman station. It seems to be among the number of those islands which Pliny calls *Celaduffe*, which is supposed to be an inversion of *δοκελάδος*, which

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means *ill sounding* or *noisy*. Parvich is not of large extent, but it is extremely fertile. Every product succeeds in perfection there: we mean those products of which a very shallow ground is susceptible; such as wine, oil, mulberry-trees, and fruit. The aspect of this island is also very pleasant at a distance, whereas that of the others adjacent disgusts the eye, by their too high, rocky, and bare hills. The name of *Parvich* seems to have been given it because it is the first one meets with on going out of the harbour of Sibenico; for the Illyric word *parvi* signifies *first*.

PARULIDES, in surgery, tumors and inflammations of the gums, commonly called *gum-boils*. They are to be treated with discutients like other inflammatory tumors.

PARUS, or TITMOUSE, in ornithology, a genus belonging to the order of passeris. The bill is very entire, covered at the basis with hairs; the tongue is truncated and hairy. There are 14 species; of which the most remarkable are,

1. The cristatus, or crested titmouse, weighs 13 pennyweight; the bill is black, with a spot of the same colour above it; all the upper part of the body grey; the neck and under parts are white, with a faint tincture of red, which is deepest just below the wings. The legs are of a lead colour. It erects its crown feathers into a crest. It inhabits the warm parts of North America; and frequents forest trees, feeding upon insects.

2. The major, or great titmouse, has the head and throat black, the cheeks white, the back of a green colour, the belly yellowish green, divided in the middle by a bed of black which extends to the vent; the rump of a bluish grey, the legs of a lead colour, the toes divided to the very origin, and the back-toe very large and strong. This species sometimes visits our gardens; but for the most part inhabits woods, where it builds in hollow trees, laying about ten eggs. It feeds on insects, which it finds in the bark of trees. In the spring they do a great deal of mischief by picking off the tender buds of the fruit trees. Like woodpeckers, they are perpetually running up and down the bodies of trees in quest of food. This bird has three cheerful notes, which it begins to utter in the month of February.

3. The coruleus, or blue titmouse, is a very beautiful bird. The bill is short and dusky; the crown of the head of a fine blue; from the bill to the eyes is a black line; the forehead and cheeks white; the back of a yellowish green; the lower side of the body yellow; the wings and tail blue, the former marked transversely with a white bar; the legs of a lead colour. They frequent gardens; and do great injury to fruit-trees, by bruising the tender buds in search of the insects which lie under them. It breeds in holes of walls, and lays 12 or 14 eggs.

4. The virginianus, or yellow rump, is found in Virginia; and is distinguished by a yellow spot on its rump. All the rest of the feathers are brown, with a slight tincture of green. It runs about the bodies of trees; and feeds on insects, which it pecks from the crevices of the bark.

5. The candatus, or long-tailed titmouse, is about five inches and a quarter in length, and seven inches in breadth. The bill is black, very thick and convex,

5 H

differ-

Parulides,
Parus.

Parus.

differing from all others of this genus. The top of the head, from the bill to the hind part, is white, mixed with a few dark-grey feathers; this bed of white is entirely surrounded with a broad stroke of black; which rising on each side of the upper mandible, passes over each eye, unites at the hind part of the head, and continues along the middle of the back to the rump. The feathers on each side of this black stroke are of a purplish red, as are those immediately incumbent on the tail. The tail is the longest, in proportion to the bulk, of any British bird, being in length three inches, the form not unlike that of a magpie, consisting of 12 feathers of unequal lengths, the middlemost the longest, those on each side growing gradually shorter. These birds are often seen passing through our gardens, going from one tree to another, as if in their road to some other place, never making any halt. They make their nests with great elegance, of an oval shape, and about eight inches deep, having near the upper end a hole for admission. The external materials are mosses and lichens curiously interwoven with wool. On the inside it is very warmly lined with a thick bed of feathers. The female lays from 10 to 17 eggs. The young follow their parents the whole winter; and, from the slimmness of their bodies, and great length of tail, appear, while flying, like as many darts cutting the air.

6. The biarmicus, or bearded titmouse, has a short, strong, and very convex bill, of box colour; the head of a fine grey; the chin and throat white; the middle of the breast flesh coloured; the sides and thighs of a pale orange; the hind part of the neck and back of orange bay; the tail is two inches and three quarters long; the legs of a deep shining black. The female wants the flesh-colour on the breast, and a triangular tuft of black feathers on each side the bill which adorn the male. They are found in marshy places.

7. The remiz, or small species of titmouse. It is called *parus pendulinus*, and is often found in Lithuania. Mr Coxe, in his Travels through Poland, gives the following account of this little animal. "The wondrous structure of its pendent nest induced me to give

* See Plate
CCCLXXVII.

an engraving* of both that and the birds themselves. They are of the smallest species of titmice. The head is of a very pale bluish ash colour; the forepart of the neck and the breast tinged with red; the belly white; wings black; back and rump of a yellowish rust colour; quill feathers cinereous, with the exterior sides white; the tail rust coloured. The male is singularly distinguished from the female by a pair of black-pointed whiskers. Its nest is in the shape of a long purse, which it forms with amazing art, by interweaving down, gossamer, and minute fibres, in a close and compact manner, and then lining the inside with down alone, so as to make a snug and warm lodge for its young brood. The entrance is at the side, small, and round, with its edge more strongly marked than the rest of this curious fabric: the bird, attentive to the preservation of its eggs or little ones from noxious animals, suspends it at the lesser end to the extremity of the slender twigs of a willow or some other tree over a river. Contrary to the custom of titmice, it lays only four or five eggs: possibly Providence hath ordained this scantiness of eggs to the remiz, because by the singular instinct imparted to it, it is enabled to secure

its young much more effectually from destruction, than the other species, which are very prolific."

Pascal.

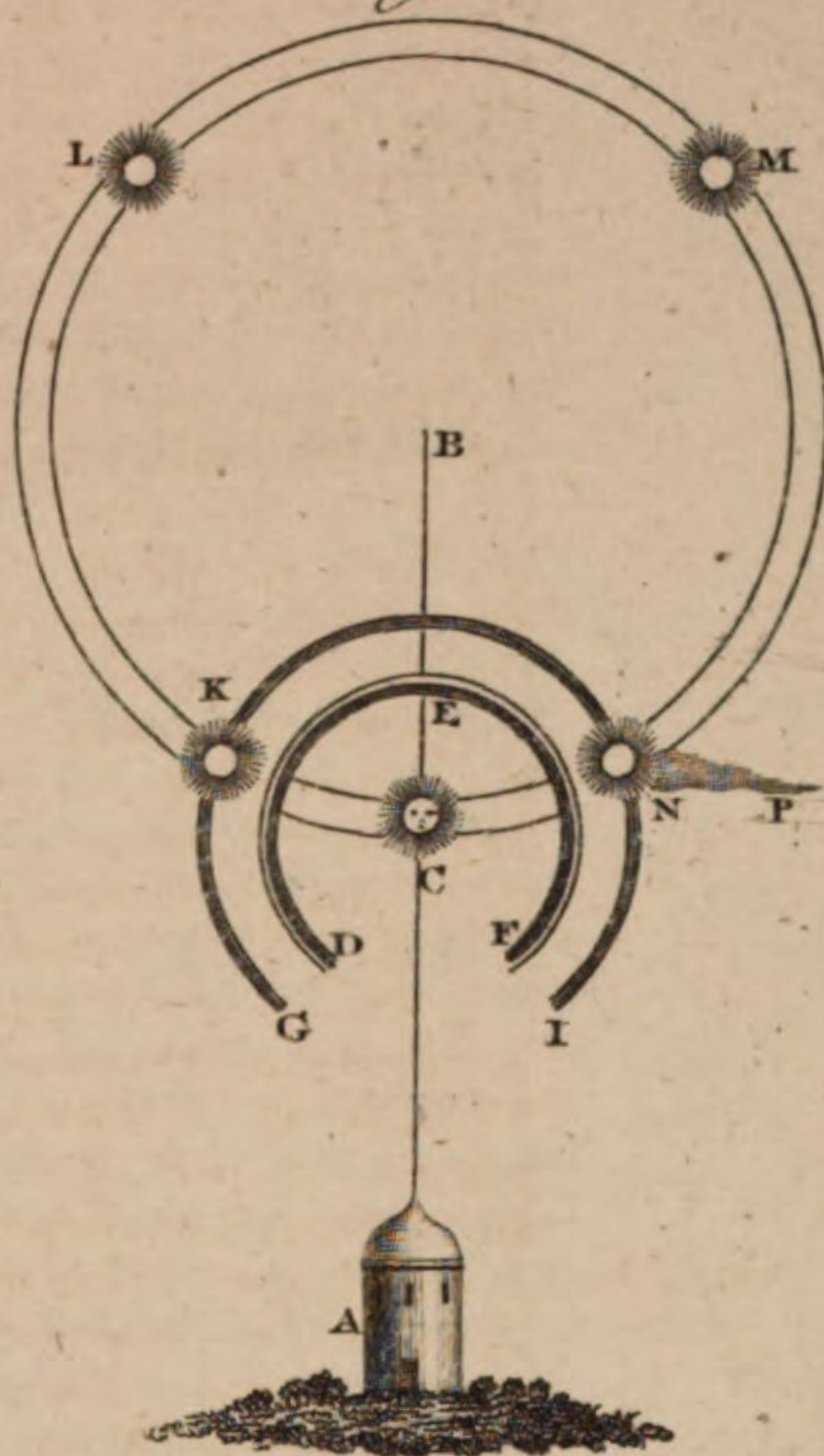
PASCAL (Blaise), one of the greatest geniuses and best writers France has produced, was born at Clermont in Auvergne, in the year 1623. His father, Stephen Pascal, born in 1588, and of an ancient family, was president of the court of aids in his province: he was a very learned man, an able mathematician, and a friend of Descartes. Having an extraordinary tenderness for this child, his only son, he quitted his office in his province, and went and settled at Paris in 1631, that he might be quite at leisure for the instruction of him; and Blaise never had any master but his father. From his infancy he gave proofs of a very extraordinary capacity: for he desired to know the reason of every thing; and when good reasons were not given him, he would seek for better; nor would he ever yield his assent but upon such as appeared to him well grounded. There was room to fear, that with such a cast of mind he would fall into free thinking, or at least into heterodoxy; yet he was always very far from any thing of this nature.

What is told of his manner of learning the mathematics, as well as the progress he quickly made in that science, seems almost miraculous. His father, perceiving in him an extraordinary inclination to reasoning, was afraid lest the knowledge of the mathematics would hinder his learning the languages. He kept him therefore as much as he could from all notions of geometry, locked up all his books of that kind, and refrained even from speaking of it in his presence. He could not, however, make his son refrain from musing upon proportions; and one day surprised him at work with charcoal upon his chamber-floor, and in the midst of figures. He asked him what he was doing? I am searching, says Pascal, for such a thing; which was just the 32d proposition of the first book of Euclid. He asked him then how he came to think of this? It was, says Pascal, because I have found out such another thing: and so going backward, and using the names of *bar* and *round*, he came at length to the definitions and axioms he had formed to himself. Does it not seem miraculous that a boy should work his way into the heart of a mathematical book, without ever having seen that or any other book upon the subject, or knowing any thing of the terms? Yet we are assured of the truth of this by Madam Perier, and several other writers, the credit of whose testimony cannot reasonably be questioned. He had, from henceforward, full liberty to indulge his genius in mathematical pursuits. He understood Euclid's Elements as soon as he cast his eyes upon them: and this was not strange; for, as we have seen, he understood them before. At 16 years of age he wrote a treatise of conic sections, which was accounted by the most learned a mighty effort of genius; and therefore it is no wonder that Descartes, who had been in Holland a long time, should, upon reading it, choose to believe that Mr Pascal the father was the real author of it. At 19, he contrived an admirable arithmetical machine, which was esteemed a very wonderful thing, and would have done credit as an invention to any man versed in science, and much more to such a youth. — About this time his health became impaired, and he was in consequence obliged to suspend his labours;

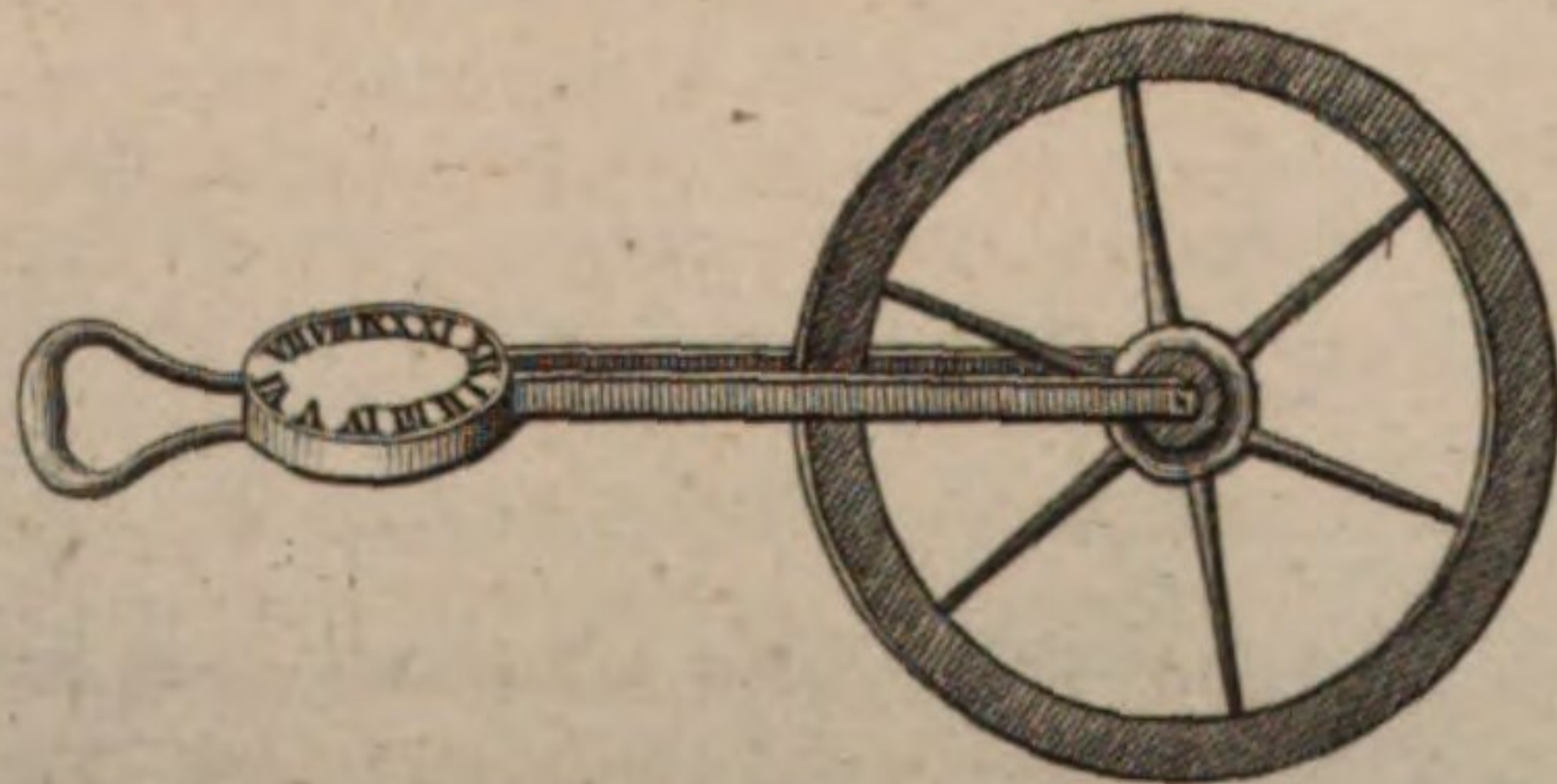
Fig. 2.



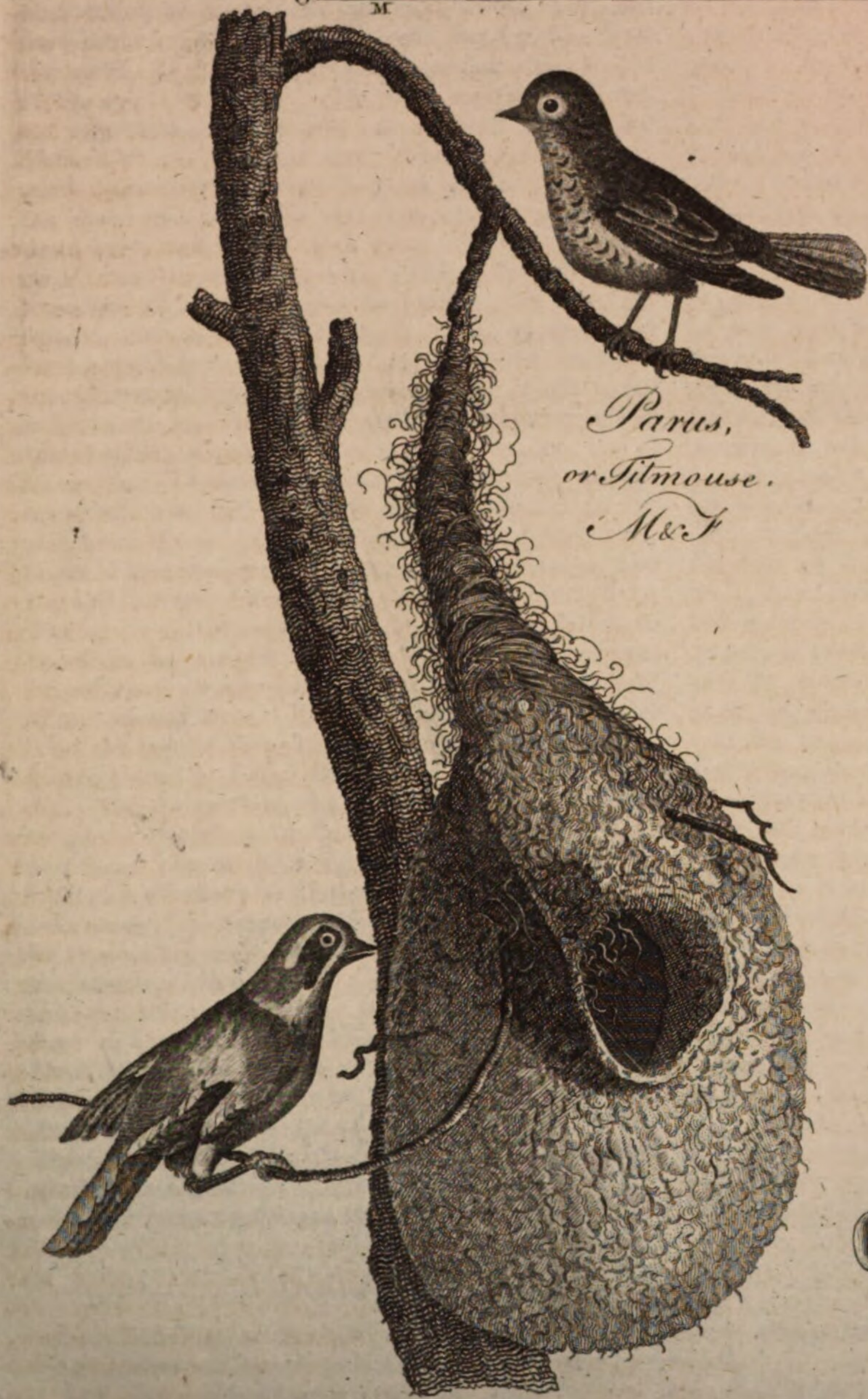
Parhelion.
Fig. 1.



Perambulator.



A. Bell Prin. Mat. Sculptor fecit.



Pascal. nor was he in a condition to resume them till four years after. About that period, having seen Torricelli's experiment respecting a vacuum and the weight of the air, he turned his thoughts towards these objects; and in a conference with Mr Petit, intendant of fortifications, proposed to make farther researches. In consequence of this idea, he undertook several new experiments, one of which was as follows: Having provided a glass tube, 46 feet in length, open at one end, and sealed hermetically at the other, he filled it with red wine, that he might distinguish the liquor from the tube. He then elevated it in this condition; and having placed it perpendicularly to the horizon, stopped up the bottom, and plunged it into a vessel full of water, to the depth of a foot; after which he opened the extremity of the tube, and the wine descended to the distance of about 32 feet from the surface of the vessel, leaving a considerable vacuum at the upper extremity. He next inclined the tube, and remarked that the wine rose higher; and having inclined it till the top was within 32 feet of the ground, making the wine thus run out, he found that the water rose in it, so that it was partly filled with that fluid, and partly with wine. He made also a great many experiments with siphons, syringes, bellows, and all kinds of tubes, making use of different liquors, such as quicksilver, water, wine, oil, &c.; and having published them in 1647, dispersed his work throughout all France, and transmitted it also to foreign countries. All these experiments, however, ascertained effects, without demonstrating the causes. Pascal knew that Torricelli conjectured that those phenomena which he had observed were occasioned by the weight of the air (A); and, in order to discover the truth of this theory, he made an experiment at the top and bottom of a mountain in Auvergne, called *Le Puy de Dome*, the result of which gave him reason to conclude that air was weighty. Of this experiment he published an account, and sent copies of it to most of the learned men in Europe. He likewise renewed it at the top of several high towers, such as those of Notre Dame at Paris, St Jacques de la Boucherie, &c.; and always remarked the same difference in the weight of the air, at different elevations. This fully convinced him of the weight of the atmosphere; and from this discovery he drew many useful and important inferences. He composed also a large treatise, in which he thoroughly explained this subject, and replied to all the objections that had been started against it. As he thought this work rather too prolix, and as he was fond of brevity and precision, he divided it into two small treatises, one of which he intitled, *A Dissertation on the Equilibrium of Liquors*; and the other, *An Essay on the Weight of the Atmosphere*. These labours procured Pascal so much reputation, that the greatest mathematicians and philosophers of the age proposed various questions to him, and consulted him respecting such difficulties as they could not solve.—Pascal.

Some years after, while tormented with a violent fit of the tooth-ache he discovered the solution of a problem proposed by Father Merfenne, which had baffled the penetration of all those who had attempted it. This problem was to determine the curve described in the air by the nail of a coach-wheel, while the machine is in motion. Pascal offered a reward of 40 pistoles to any one who should give a satisfactory answer to it. No one, however, having succeeded, he published his own at Paris; but as he began now to be disgusted with the sciences, he would not put his real name to it, but sent it abroad under that of A. d'Ettenville.—This was the last work which he published in the mathematics; his infirmities now increasing so much, that he was under the necessity of renouncing severe study, and of living so recluse, that he scarcely admitted any person to see him.

After he had thus laboured abundantly in mathematical and philosophical disquisitions, he forsook those studies and all human learning at once; and determined to know nothing, as it were, for the future, but Jesus Christ and him crucified. He was not 24 years of age, when the reading some pious books had put him upon taking this holy resolution; and he became as great a devotee as any age has produced. Mr Pascal now gave himself up entirely to a state of prayer and mortification. He had always in his thoughts these great maxims, of renouncing all pleasure and all superfluity; and this he practised with rigour even in his illnesses, to which he was frequently subject, being of a very invalid habit of body: for instance, when his sickness obliged him to feed somewhat delicately, he took great care not to relish or taste what he eat. He had no violent affection for those he loved; he thought it sinful, since a man possesses a heart which belongs only to God. He found fault with some discourses of his sister, which she thought very innocent; as if she had said upon occasion, that she had seen a beautiful woman, he would be angry, and tell her, that she might raise bad thoughts in footmen and young people. He frequently wore an iron girdle full of points next to his skin; and when any vain thought came into his head, or when he took particular pleasure in any thing, he gave himself some blows with his elbow, to redouble the prickings, and to recal himself to his duty.

Though Mr Pascal had thus abstracted himself from the world, yet he could not forbear paying some attention to what was doing in it; and he even interested himself in the contest between the Jesuits and the Jansenists. The Jesuits, though they had the popes and kings on their side, were yet decried by the people, who brought up afresh against them the assassination of Henry the Great, and all the old stories that were likely to make them odious. Pascal went farther; and by his *Lettres Provinciales* (B), published in

5 H 2

1656,

(A) Before this period, all those effects which are now known to be produced by the weight of the atmosphere, were attributed to Nature's abhorrence of a vacuum.

(B) The origin of these letters was this: for the sake of unbending his mind, Pascal used often to go to Port Royal des Champs, where one of his sisters had taken the veil, and where he had an opportunity of seeing the celebrated Mr Arnaud, and several of his friends. This gentleman's dispute with the Doctors of the Sorbonne,

Pascal.

1656, under the name of *Louis de Montalte*, made them the subject of ridicule. "These letters (says Voltaire) may be considered as a model of eloquence and humour. The best comedies of Moliere have not more wit than the first part of these letters; and the sublimity of the latter part of them is equal to any thing in Bossuet. It is true, indeed, that the whole book was built upon a false foundation; for the extravagant notions of a few Spanish and Flemish Jesuits were artfully ascribed to the whole society. Many absurdities might likewise have been discovered among the Dominican and Franciscan casuists; but this would not have answered the purpose; for the whole raillery was to be levelled only at the Jesuits. These letters were intended to prove, that the Jesuits had formed a design to corrupt mankind; a design which no sect or society ever had, or can have." Voltaire calls Pascal the first of their satirists; for Despreaux, says he, must be considered as only the second. In another place, speaking of this work of Pascal, he says, that "examples of all the various species of eloquence are to be found in it. Though it has been now written almost 100 years, yet not a single word occurs in it, favouring of that vicissitude to which living languages are so subject. Here then we are to fix the epocha when our language may be said to have assumed a settled form. The bishop of Lucon, son of the celebrated Bossuet, told me, that asking one day the bishop of Meaux what work he would covet most to be the author of, supposing his own performances set aside, Bossuet replied, *The Provincial Letters*." These letters have been translated into all languages, and printed over and over again. Some have said, that there were decrees of formal condemnation against them;

and also that Pascal himself, in his last illness, detested them, and repented of having been a Jansenist: but both these particulars are false and without foundation. Father Daniel was supposed to be the anonymous author of a piece against them, intitled, *The Dialogues of Cleander and Eudoxus*.

Pascal was only about the age of 30 when these letters were published, yet he was extremely infirm, and his disorders increasing soon after, so much that he conceived his end fast approaching, he gave up all farther thoughts of literary composition. He resolved to spend the remainder of his days in retirement and pious meditation; and with this view he broke off all his former connections, changed his habitation, and spoke to no one, not even to his own domestics. He made his own bed, fetched his dinner from the kitchen, carried it to his apartment, and brought back the plates and dishes in the evening; so that he employed his servants only to cook for him, to go to town, and to do such other things as he could not absolutely do himself. In his chamber nothing was to be seen but two or three chairs, a table, a bed, and a few books. It had no kind of ornament whatever; he had neither a carpet on the floor nor curtains to his bed; but this did not prevent him from sometimes receiving visits; and when his friends appeared surprised to see him thus without furniture, he replied, that he had what was necessary, and that any thing else would be a superfluity, unworthy of a wise man. He employed his time in prayer, and in reading the Holy Scriptures; and he wrote down such thoughts as this exercise inspired. Though his continual infirmities obliged him to use very delicate food, and though his servants employed the utmost care to provide only what

Pascal.

Sorbonne, who were endeavouring to condemn his opinions, was of course frequently brought upon the carpet. Mr Arnaud, solicited to write a defence, had composed a treatise, which, however, did not meet with approbation, and which he himself considered as a very indifferent work. Pascal being one day in company, some of these present, who were sensible of his abilities, having said to him, "You who are a young man ought to do something;" he took the hint, and composed a letter, which he showed to his friends, and which was so much admired, that they insisted on its being printed. The object of this letter is an explanation of the terms, *next power*, *sufficient grace*, and *actual grace*; and the author here shows, as well as in two others which followed it, that a regard for the faith was not the motive which induced the Doctors of the Sorbonne to enter into dispute with Mr Arnaud, but a desire of oppressing him by ridiculous questions. Pascal, therefore, in other letters which he published afterwards, attacks the Jesuits, whom he believed to be the authors of this quarrel, and in the most elegant style, seasoned with wit and satire, endeavours to render them not only odious but ridiculous. For this purpose he employs the form of dialogue, and introduces an ignorant person, as men of the world generally are, who requests information respecting the questions in dispute from these Doctors, whom he consults by proposing his doubts; and his answers to their replies are so perspicuous, pertinent, and just, that the subject is illustrated in the clearest manner possible. He afterwards exposes the morality of the Jesuits, in some conversations between him and one of their casuists, in which he still represents a man of the world, who seeks for instruction, and who, hearing maxims altogether new to him, seems astonished, but still listens with moderation. The casuist believes that he is sincere, and relishes these maxims; and under this persuasion he discovers every thing to him with the greatest readiness. The other is still surprised; and as his instructor attributes this surprise only to the novelty of his maxims, he still continues to explain himself with the same confidence and freedom. This instructor is a simple kind of man, who is not overburdened with acuteness, and who insensibly engages himself in details which always become more particular. The person who listens, wishing neither to contradict him nor to subscribe to his doctrine, receives it with an ambiguous kind of raillery; which, however, sufficiently shows what opinion he entertains of it. The Jesuits reproached the author with having employed only raillery against them, and with having misrepresented several passages of their authors; which induced Pascal to write eight more in vindication of himself. All these letters, in number 18, written in a style altogether new in France, appeared in 4to, one after another, from the month of January 1656, to the month of March of the year following.

Pascal. what was excellent, he never relished what he eat, and seemed quite indifferent whether what they brought him was good or bad. When any thing new and in season was presented to him, and when he was asked, after he had finished his repast, how he liked it, he replied, "You ought to have informed me before hand, I should have then taken notice of it." His indifference in this respect was so great, that though his taste was not vitiated, he forbade any sauce or ragout to be made for him which might excite his appetite. He took without the least repugnance all the medicines that were prescribed him for the re-establishment of his health; and when Madame Perrier, his sister, seemed astonished at it, he replied ironically, that he could not comprehend how people could ever show a dislike to a medicine, after being apprised that it was a disagreeable one, when they took it voluntarily; for violence or surprise ought only to produce that effect.

Though Pascal had now given up intense study, and though he lived in the most temperate manner, his health continued to decline rapidly; and his disorders had so enfeebled his organs, that his reason became in some measure affected. He always imagined that he saw a deep abyss on his left side, and he never would sit down till a chair was placed there, to secure him from the danger which he apprehended. His friends did every thing in their power to banish this melancholy idea from his thoughts, and to cure him of his error, but without the desired effect; for though he would become calm and composed for a little, the phantom would in a few moments again make its appearance and torment him. The cause of his seeing this singular vision for the first time, is said to have been as follows: His physicians, alarmed on account of the exhausted state to which he was reduced, had advised him to substitute easy and agreeable exercise for the fatiguing labours of the closet. One day, in the month of October 1654, having gone according to custom to take an airing on the Pont de Neuilly, in a coach and four, the two first horses suddenly took fright, opposite to a place where there was no parapet, and threw themselves violently into the Seine; but the traces luckily giving way, the carriage remained on the brink of the precipice. The shock which Pascal, in his languishing situation, must have received from this dreadful accident, may easily be imagined. It threw him into a fit, which continued for some time, and it was with great difficulty that he could be restored to his senses. After this period his brain became so deranged, that he was continually haunted by the remembrance of his danger, especially when his disorders prevented him from enjoying sleep. To the same cause was attributed a kind of vision or ecstasy that he had some time after; a memorandum of which he preserved during the remainder of his life in a bit of paper, put between the cloth and the lining of his coat, and which he always carried about him. Some of the Jesuits had the baseness and inhumanity to reproach this great genius with the derangement of his organs. In

the Dictionary of Jansenist Books, he is called a *hypochondriac*, and a man of a *wrong head*, and a *bad heart*. But, as a celebrated writer has observed, Pascal's disorder had in it nothing more surprising or disgraceful than a fever, or the vertigo. During the last years of his life, in which he exhibited a melancholy example of the humiliating reverses which take place in this transitory scene, and which, if properly considered, might teach mankind not to be too proud of those abilities which a moment may take from them, he attended all the salutations (c), visited every church in which relicks were exposed, and had always a spiritual almanac, which gave an account of all those places where particular acts of devotion were performed. On this occasion it has been said, that "Religion renders great minds capable of little things, and little minds capable of great."

In company, Pascal was distinguished by the amiableness of his behaviour; by his easy, agreeable, and instructive conversation, and by great modesty. He possessed a natural kind of eloquence, which was in a manner irresistible. The arguments he employed for the most part produced the effect which he proposed; and though his abilities intitled him to assume an air of superiority, he never displayed that haughty and imperious tone which may often be observed in men of shining talents. The philosophy of this great man consisted in renouncing all pleasure, and every superfluity. He not only denied himself the most common gratifications; but he took also without reluctance, and even with pleasure, either as nourishment or as remedies, whatever was disagreeable to the senses; and he every day retrenched some part of his dress, food, or other things, which he considered as not absolutely necessary. Towards the close of his life, he employed himself wholly in pious and moral reflections, writing down those which he judged worthy of being preserved. The first piece of paper he could find was employed for this purpose; and he commonly put down only a few words of each sentence, as he wrote them merely for his own use. The bits of paper upon which he had written these thoughts, were found after his death filed upon different pieces of string, without any order or connection; and being copied exactly as they were written, they were afterwards arranged and published.

The celebrated Bayle, speaking of this great man, says, An hundred volumes of sermons are not of so much avail as a simple account of the life of Pascal. His humility and his devotion mortified the libertines more than if they had been attacked by a dozen of missionaries. In a word, Bayle had so high an idea of this philosopher, that he calls him a *paradox in the human species*. "When we consider his character (says he), we are almost inclined to doubt that he was born of a woman, like the man mentioned by Lucretius:

"*Ut vix humana videatur stirpe creatus.*"

Mr Pascal died at Paris the 19th of August 1662, aged

(c) Certain solemn prayers, which are repeated at certain hours, and on certain days, in the Popish churches.

Pascal
||
Pasiphae.

aged 39 years. He had been some time about a work against atheists and infidels, but did not live long enough to digest the materials he had collected. What was found among his papers was published under the title of *Pensées*, &c. or *Thoughts upon religion and other subjects*, and has been much admired. After his death appeared also two other little tracts; one of which is intitled, *The equilibrium of fluids*; and the other, *The weight of the mass of air*.

The works of Pascal were collected in five volumes 8vo, and published at the Hague by De Tune, and at Paris by Nyon senior, in 1779. This edition of Pascal's works may be considered as the first published; at least the greater part of them were not before collected into one body; and some of them had remained only in manuscript. For this collection, the public were indebted to the Abbé Bossu, and Pascal deserved to have such an editor. "This extraordinary man (says he) inherited from nature all the powers of genius. He was a geometrician of the first rank, a profound reasoner, and a sublime and elegant writer. If we reflect, that in a very short life, oppressed by continual infirmities, he invented a curious arithmetical machine, the elements of the calculation of chances, and a method of resolving various problems respecting the cycloid; that he fixed in an irrevocable manner the wavering opinions of the learned respecting the weight of the air; that he wrote one of the completest works which exist in the French language; and that in his thoughts there are passages, the depth and beauty of which are incomparable—we shall be induced to believe, that a greater genius never existed in any age or nation. All those who had occasion to frequent his company in the ordinary commerce of the world, acknowledged his superiority; but it excited no envy against him, as he was never fond of showing it. His conversation instructed, without making those who heard him sensible of their own inferiority; and he was remarkably indulgent towards the faults of others. It may be easily seen by his Provincial Letters, and by some of his other works, that he was born with a great fund of humour, which his infirmities could never entirely destroy. In company, he readily indulged in that harmless and delicate raillery which never gives offence, and which greatly tends to enliven conversation; but its principal object generally was of a moral nature. For example, ridiculing those authors who say, *My Book, my Commentary, my History*, they would do better (added he) to say, *Our Book, our Commentary, our History*; since there are in them much more of other people's than their own." An elegant Latin epitaph was inscribed on his tomb.

PASCHAL, something belonging to the passover, or Easter. See PASSOVER and EASTER.

PAS-EP-A, the chief of the Lamas, particularly eminent for having invented characters for the Moguls. He was much esteemed by the Chinese, though the literati exclaimed against the manner in which the people demonstrated their affection. There is still at Pekin a *myau* or temple, built in honour of Pas-ep-a in the time of the Mogul emperors. He died in 1279.

PASIPHAË (fab. hist.), daughter of the Sun by Perseus, who married Minos king of Crete. She disgraced herself by an unnatural passion for a bull, which we are

told she was enabled to gratify by means of the artist Dædalus. This celebrated bull had been given to Minos by Neptune, to be offered on his altars. But as the monarch refused to sacrifice the animal on account of his beauty, the god revenged his disobedience by inspiring Pasiphaë with an unnatural love for him. This fable, which is universally believed by the poets, who observe, that the minotaur was the fruit of this infamous commerce, is refuted by some writers; who suppose that the infidelity of Pasiphaë to her husband was betrayed in her affection for an officer of the name of Taurus, and that Dædalus, by permitting his house to be the asylum of the two lovers, was looked upon as accessory to the gratification of Pasiphaë's lust. From this amour with Taurus, as it is farther remarked, the queen became mother of twins; and the name of *Minotaurus* arises from the resemblance of the children to the husband and the lover of Pasiphaë. Minos had four sons by Pasiphaë, Castreus, Deucalion, Glaucus, and Androgeus; and three daughters, Hecate, Ariadne, and Phædra.

PASQUIN, a mutilated statue at Rome, in a corner of the palace of the Ursini. It takes its name from a cobbler of that city called *Pasquin*, famous for his sneers and gibes, and who diverted himself by passing his jokes on all that went through that street. After his death, as they were digging up the pavement before his door, they found in the earth the statue of an ancient gladiator, well cut, but maimed and half-spoiled: this they set up in the place where it was found, and by common consent named it *Pasquin*. Since that time all satires are attributed to that figure; and are either put into its mouth, or pasted upon it, as if they were written by Pasquin redivivus; and these are addressed by Pasquin to Marforio, another statue at Rome. When Marforio is attacked, Pasquin comes to his assistance; and, when Pasquin is attacked, Marforio assists him in his turn; that is, the people make the statues speak just what they please.

PASQUINADE, a satirical libel fastened to the statue of Pasquin: these are commonly short, witty, and pointed; and from hence the term has been applied to all lampoons of the same cast.

PASS, or PASSADE, in fencing, an advance or leap forward upon the enemy. Of these there are several kinds; as passes within, above, beneath, to the right, the left, and passes under the line, &c. The measure of the pass is when the swords are so near as that they may touch one another.

Pass, in a military sense, a strait and difficult passage, which shuts up the entrance into a country.

PASS Parole, in military affairs, a command given at the head of an army, and thence communicated to the rear, by passing it from mouth to mouth.

PASSADE, in the manege, is a turn or course of a horse backwards or forwards on the same spot of ground. Hence there are several sorts of passades, according to the different ways of turning, in order to part or return upon the same tread, which is called *closing the passade*; as the passade of one time, the passade of five times, and the raised or high passades, into which the demivolts are made into curvets. See HORSEMANSHIP.

North-west PASSAGE. } See NORTH-WEST Passage, NORTH-
North-east PASSAGE. } East Passage, and POLE.

Right

Pasquin
||
Passage.

Passage
||
Passau.

Right of PASSAGE, in commerce, is an imposition or duty exacted by some princes, either by land or sea, in certain close and narrow places in their territories, on all vessels and carriages, and even sometimes on persons or passengers, coming in or going out of ports, &c. The most celebrated passage of this kind in Europe is the Sound: the dues for passing which strait belong to the king of Denmark, and are paid at Elsinore or Cronenburg.

PASSANT, in heraldry, a term applied to a lion or other animal in a shield, appearing to walk leisurely: for most beasts, except lions, the *trippant* is frequently used instead of *passant*.

PASSAU, an ancient, handsome, and celebrated town of Germany, in Lower Bavaria, with a bishop's see and fort. The houses are well-built, and the cathedral is thought to be the finest in all Germany. It is divided into four parts, three of which are fortified; but the other is only a suburb, and has nothing but an old castle in which the bishop generally resides. It is seated at the confluence of the rivers Inn and Iltz, in E. Long. 13. 34. N. Lat. 48. 26.

PASSAU, a bishopric of Germany, lying between Lower Bavaria, Austria, and Bohemia. It extends not above 20 miles where largest; and has no considerable place, except the capital, which is of the same name.

PASSERAT (John), a celebrated professor of eloquence in the royal college of Paris, and one of the politest writers of his time, was born at Troyes, in the province of Champagne, in 1534. He spent three years in studying the law under the famous Cujacius at Bourges, where he became professor of eloquence in 1572. He was an indefatigable student, passing frequently whole days without eating a morsel; yet to an extraordinary erudition he joined an uncommon politeness of manners and pleasantry, having nothing of the mere scholar except the gown and hood. He gained the esteem of the kings Charles IX. Henry III. and of all the men of wit and learning in his time. He died in 1602, and left several admired works behind him.

PASSERES, the name of a class of birds. See ZOOLOGY.

Passau
||
Passeres.

E R R A T A.

VOLUME XII.

- P. 475. col. 2. l. 29. from bottom. For *stalk*, read *flask*.
 478. — 1. - 15. from bottom. For *mind*, read *heart*; and in line 16. for *heart*, read *mind*.
ib. — 2. - 1. For *order*, read *ardour*.
 481. — 2. - 2. For *bow*, read *bone*.
 669. — 2. - 14. from bottom. For *Accipitus*, read *Accipitres*; in line 20. for *Bellucæ*, read *Belluæ*; and in line 25. for *Primatis*, read *Primates*.
 670. — 1. - 4. For *Tugulares*, read *Jugulares*.

VOLUME XIII.

522. — 1. - 14. from the bottom. For *Serac*, read *Sefac*.
 692. — 2. - 13. from the bottom, read "A female pangolin, described in the first volume of the
 " Asiatic Researches, had a long tongue shaped like that of the camelcon; and
 " if it was nearly adult, as we may reasonably conclude from a young one found
 " in it," &c.
 697. — 1. - 20. For *Jewish* philosophers, read *Grecian* philosophers.

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230 Digitated, when a simple petiole connects leaflets or small leaves at the top. Binate, ternate, &c. are modifications of this according to the number of leaflets thus connected, f. 102.

231 Pedated, when a bifid or forked petiole connects several leaflets only by the interior side, f. 103.

232 Pinnated, or feathered, when a simple petiole connects any number of leaflets to its sides. Bijugous (double-paired), quadrijugous (four-paired), &c. when only four, eight, &c. &c. leaflets are thus connected, f. 104—110.

Pinnated with an odd one, when terminated by a single or odd leaflet.

abruptly, when terminated neither by a tendril nor by a leaflet.

cirrhous, when terminated by a tendril (15). with opposite (127) leaflets.

with alternate (128) leaflets.

with interrupted leaflets, when the leaflets are alternately greater and smaller.

with decursive leaflets, or leaflets running down the petioles.

2. *A Decompound Leaf is either,*

233 Bigeminous, q. double-twin, leaves, when the petiole is dichotomous, or successively divided into two, and every top carries a pair of leaflets.

234 Biternated, doubly ternated (230), f. 113.

235 Bipinnated, doubly pinnated (232), f. 114.

3. *A Supradecompound Leaf is either,*

236 Tergeminous, when the petiole being twice dichotomous, or divided into two, bears a pair of leaflets.

237 Triternated, thrice ternated, f. 115.

238 Tripinnated, thrice pinnated, f. 116.

Stipula, or Scale.

Cirrhus, or Tendril.

Nº XVIII. PUBES, the hair, wool, &c. of plants, is either,

239 *Tomentum*, a flock, fine interwoven hairs (*villi*), scarcely visible. See 160, 241, and f. 84.

240 *Pili* (164), excretory ducts of a plant resembling setæ or bristles (166).

241 *Villi* (161), soft hairs.

242 *Lana* (163), curled thick hairs.

243 *Barba*, a beard, parallel hairs.

244 *Strigæ*, comb-teeth, stiff rigid plain hairs.

245 *Setæ*, bristles, stiff round hairs.

246 *Palea* (170), a membranaceous scale (33).

247 *Hamus*, hook, an acuminate (185) crooked point.

248 *Glochis*, a point or prickle with many teeth turned backwards.

249 *Glandule*, a papilla, or small gland secreting moisture, f. 155. a.

250 *Utricle*, a small vessel full of secreted moisture.

251 *Viscosity*, expresses the quality of tenacious moisture.

252 *Glutinosity*, expresses the quality of slippery humour.

Nº XIX. ARMA, the arms of plants, are either,

253 *Aculei*, prickles, pricking points affixed only to the bark.

254 *Furca*, forks, prickles (253) divided or forked.

255 *Spina* (172), thorns, points or prickles put forth from the wood of the plant, f. 157.

256 *Stimuli* (273), points producing inflammatory punctures, whereby the parts become itching.

Nº XX. *A BRACTEA, or floral leaf.*

257 *Coma*, the bractæ or spangles on the top of the stalk of some plants, remarkable in size compared to the other leaves.

Nº XXI. *A PEDUNCLE is either,*

258 Common, to more flowers than one.

259 Partial, bearing any number of flowers of the common peduncle.

260 A pedicle, proper to flowers in a common peduncle.

261 Cernuous, stooping, having the top looking to the ground.

262 Retrofract, broken backward, reduced to a depending state as if by force.

263 Multiflorous, producing many flowers.

264 INFLORESCENCE is the mode in which flowers are connected to the peduncle of a plant; and this is either,

265 1. *Verticillus*, a whirl, when a number of flowers surround the plant in a ring.

266 2. *Capitulum*, a knot, when a number of flowers are collected together in form of a globe. It signifies also the upper parts of the fructification of mosses.

267 3. *Fasciculus*, a bunch, when erect parallel flowers of equal height are collected together (392).

268 4. *Spica*, a spike, when sessile alternate flowers are placed on a common simple peduncle. A spike is either

269 Simple, continued and undivided.

270 Compound, when more small spikes stand on one peduncle.

271 Glomerated, when the small spikes are crowded together, without any certain order.

272 Interrupted, when the smaller spikes are placed alternately and distant one from another.

273 5. A *corymbus*, is formed of a spike (268), having every single flower provided with a pedicle of its own, and the whole elevated to a proportionable height, f. 32.

274 6. *Racemus*, a cluster, when the common peduncle has lateral branches, f. 33.

275 Unilateral, when all the flowers grow on one side.

276 7. *Panicula*, a panicle, when the flowers are sparse, and grow on peduncles variously divided, f. 36.

277 8. *Thyrfus*, a panicle (276) gathered into an ovate (64) form.

278 *Umbella*, an umbel; a receptacle (13) lengthened out from one centre into filiform peduncles rising to a proportionable height, so as to resemble an umbrella above, f. 4. b b.

279 Simple, when all the peduncles spring out of one and the same receptacle.

280 Compound, when every peduncle carries a small umbel on its top.

- 281 *Umbellula sessilis*, a small sessile umbel, when a number of peduncles rise from the same centre, and stand equally all around it.
 282 *Cyma*, a receptacle rising from the same general centre, with partial ones here and there, and lengthened into peduncles all equally high at top.
 283 *Rachis*, a filiform receptacle connecting any number of florets into a long spike.
 284 *Spadix*, the receptacle of a palm-tree rising within a *spatha* or sheath, and divided into fructifying branches, f. 2.

N° XXII. FRUCTIFICATION is,

- 285 The temporary part of a vegetable, destined to generation. And is either
 286 Simple, consisting of few flowers.
 287 Compound, when a number of flowers are set together.

A. *Calyx*, the Cup.

- 288 1. *Perianthium*, a cup contiguous to the fructification, f. 18.
 289 — of the fructification, containing the stamina (9) and the germen (333).
 290 — of the flower, containing stamina without a germen.
 291 — of the fruit, containing a germen without stamina.
 292 — a, Proper, belonging to any particular flower. And is either
 293 — Monophyllous, consisting only of one leaf.
 294 — Polyphyllous, consisting of a number of leaves.
 295 — Superior, having the germen below the receptacle.
 296 — Inferior, having the germen above the receptacle.
 297 — b, Common, containing a number of flowers set together.
 298 — Calyculated, a calyx or cup, having, as it were, another lesser cup round its base.
 299 2. *Involucrum*, or wrapper, a cup remote from a flower, f. 4.
 300 — Universal, set under an universal umbel, (278) f. 4. a a.
 301 — Partial, set under a partial umbel f. 4. d d.
 302 — Proper, set under any particular flower.
 303 3. *Gluma*, a glume or chaff, the cup of any kind of grass, consisting of valves embracing one another, f. 3. Either
 304 — Uniflorous, containing a single flower.
 305 — Multiflorous containing any number of flowers.
 306 *Arista*, or awn, f. 3. aa. a tapering point growing out of the glume or chaff; either straight, or
 307 Tortile, twisted like a cord.
 308 4. *Amentum*, a catkin, consisting of a chaffy common receptacle like a gem or bud, f. 6.
 309 5. *Spatha*, spath or sheath, a cup opening longitudinally, f. 1.
 310 6. *Calyptra*, hood, the cowl-shaped cup of some mosses placed over the anthera (331) f. 5.
 311 7. *Volva*, the membranaceous cup of a mushroom.
 — a. *Perichatium*, a circular tuft of fine hair-like leaves surrounding the bases of the filaments in the genus *Hypnum*.

B. *Corolla*, or coloured part of a flower.

- 312 Petal, a part of a corolla when divided into more parts than one, f. 13. b b.
 313 Tube, the inferior part of a monopetalous corolla, f. 11. a.
 314 Limb, the superior spreading part of a monopetalous corolla, f. 13, 14.
 315 *Unguis*, heel, the inferior part of a polypetalous corolla affixed to the receptacle.
 316 *Lamina*, lappet, the superior spreading part of a polypetalous corolla, f. 14.
 317 Regular, equal in figure, magnitude, and proportion of parts.
 318 Irregular, when the segments of the limb differ in figure, magnitude, or proportion of parts.
 319 Ringent, irregular (318) gaping like two lips opened very wide.
 320 *Galea-ringentis*, the vizard or upper lip of a ringent corolla,
 321 *Faux*, the throat or opening between the segments of a corolla where the tube (313) terminates.
 322 Cruciated, crossed, having four equal and patent petals.
 323 *Personata*, masked, ringent (319), but shut close between the lips by the palate.
 324 Papilionaceous, butterfly-shaped, irregular; the inferior petal being cymbiform or shaped like a boat (called the *carina* or keel); the superior ascending, (called the *vexillum* or flag); the side petals standing single (called the *alæ* or wings).
 325 Compound, consisting of a number of florets, on a common receptacle, and within a common perianthium.
 326 1. Ligulated, having all the exterior florets plain on the outside.
 327 2. Tubulous, having all the small corollæ of the florets tubulated.
 328 3. Radiated, having all the small corollæ of the disk tubulous, and those of the circumference ligulated and of a different form.
 329 Nectary, the melliferous part proper to any flower, f. 15, 16.

C. *Stamen*, a Chive.

- 330 Filament, the part supporting the anthera, and connecting it with the plant, f. 18. e e.
 331 Anthera, the part of a flower which is full of pollen (332) or fine flower-dust, which it discharges as soon as itself comes to maturity, f. 18. f f, g.
 332 Pollen, flower-dust, bursting by being brought into contact with moisture, and throwing out elastic atoms. (According to the principles of the sexual system, this is the origin of generation in plants).

D. *Pistillum*, a Pistil.

- 333 Germen, the rudiment of the unripe fruit in a flower. This is either,
 334 Superior, included in the corolla.
 335 Inferior, placed below the corolla.
 336 Style, the part of the pistil that raises the stigma (337) from the germen, f. 18. c.
 337 Stigma, the summit of the pistil bedewed with moisture, f. 18. d.

E. *Pericarpium*, a Fruit-case, is a

- 338 1. Capsule, a fruit-case, hollow and opening in a certain determinate manner, f. 23, 24, 25.
 339 2. Valvule, a screen or defence, with which the fruit is covered on the outside.
 340 *Loculamentum*, a hole or cavity for lodging the seeds.
 341 *Dissepimentum*, a partition, by which the fruit is distinguished or divided within, into any number of cavities, f. 29.
 342 Bicapsular, having two capsules (338).
 343 Bilocular, having two cavities (340).
 344 Tricoccous, a capsule having three protuberant knobs, and divided into three cavities within, each containing one seed.
 345 Didymous, having two knobs protuberant on the outside.
 346 *Siliqua*, a husk; a fruit-case having two valves, and attaching the seeds along both sutures, f. 23, 24.
 347 *Torulosa*, having prominences swelling out on each side.
 348 *Parallelum dissepimentum*, a parallel partition of equal breadth with the valves.
 349 *Contrarium dissepimentum*, a cross partition narrower than the valves.
 350 3. *Legumen*, a pod or swob; a pericarpium having two valves, and attaching the seeds only along the one suture, f. 23.
 351 *Isthmis interceptum*, having parts at regular distances straiter than the rest, so as to divide it across into different internal cavities.
 352 4. Follicle, a pericarpium of one valve, opening longitudinally on one side, and not having the seeds attached to the suture, f. 22.
 353 5. *Drupa*, plum; a pericarpium stuffed with fleshy substance, without any valve, and containing a nut or stone in the middle, f. 26.
 354 5. *Pomum*, apple or pear; a pericarpium stuffed with fleshy substance without valves, and containing a capsule or seed-case in the middle, f. 25.
 355 6. *Bacca*, berry; a pericarpium full of pulpy or soft substance, without valves, and containing seeds otherwise naked.
 356 7. Nidulant, nestling; seeds dispersed through a pulpy or soft substance.
 357 8. *Strobilus*, cone; a pericarpium formed by the induration of the scales of a catkin, (308). f. 7.

F. *Semen*, Seed.

- 358 *Hilum*, speck; the external scar or mark of the seed, occasioned by its attachment to the fruit-case before it come to maturity.
 359 *Corculum*, the original substance of a new plant within a seed.
 360 *Corona*, crown, or dress adhering to the top of a seed, by which it is enabled to fly about after it is ripe.
 361 *Pappus*, down; a feathery or hairy crown with which it flies, f. 31.
 362 *Stipitatus*, stalked, having a thread betwixt it and the down.

- 363 Capillary, consisting of fine undivided hairs.
 364 Plumose, feathery; consisting of hairs feathered on the sides.
 365 *Cauda*, tail; a thread or membrane at the end of a seed.
 366 *Hamus*, a hook, (247).
 367 *Caliculus*, the interior and proper integument of a seed.
 368 *Nux*, kernel; a seed covered with a bony shell.
 369 *Arillus*; the outer coat of a seed, which falls off of its own accord.

G. *Receptaculum*, a Receptacle.

- 370 Common, containing more flowers and fruits than one.
 371 Compound, or composite flower; having the receptacle dilated and entire, the florets sessile.
 372 Aggregate flower; having the receptacle dilated, and the florets subpedicellated, or standing on very short flower-stalks.

Bulbus, a bulb. *Gemma*, a gem or bud.

Nº XXIII. VERNATION is the

- 373 Disposition of leaves within the bud (20).
 374 Conduplicated, doubled together, having the opposite edges approaching each other in parallel lines.
 375 Convolute, rolled together spirally like a cowl.
 376 Involute, rolled inwards, having the edges on both sides rolled spirally, so as to be nearly met on the upper surface of the leaf.
 377 Revolute, rolled backwards, having the edges on both sides rolled spirally, so as to be nearly met on the back of the leaf, f. 123.
 378 Equitant, riding, when two leaves opposite to each other close their edges, so that the one includes or clasps about the other.
 379 Obvolute, when two edges of one leaf close on the upper surface, so that one edge divides or lies betwixt the two sides of the other.
 380 Plicated, plaited, gathered into various plaits, f. 73.
 381 Circinal, rolled spirally from the top to the base, so that the top comes to occupy the centre.

Nº XXIV. GENERAL TERMS to be added.

- 382 *Laxus*, flexible at pleasure. *Debilis* (weak), and *flaccidus* (flagging) are almost synonymous.
 383 Rigid, not enduring to be bent.
 384 Articulated (229), jointed or knotted.
 385 *Enodis*, without joints or knots.
 386 *Premorsus*, forebitten; having the top as it were bitten off f. 54.
 387 Radicant, pushing down roots.
 388 Squamous, covered with scales.
 389 Proliferous flowers, having one flower rising within another.
 390 Imbricated parts, one overlapping another like tiles or slates, f. 10.
 391 Squarrose, rough or scurfy, applied to the tops or irregular segments of leaves, &c. when they stand out on all sides.
 392 Fastigiatus, trunks, branches, or peduncles rising all alike high.

393 Re-

- 393 Resupinated, turned upside down.
 394 Lacerated, a term applied to the edges of flowers or leaves when divided irregularly as if they were torn.
 395 Lacinated, divided into parts or segments in an indeterminate manner, f. 60.

TERMS omitted to be inserted in their proper places.

- 396 Brachiated branches, when each pair stands at right angles with the pairs immediately above and below them, f. 116, 117.
 397 Aphyllous, without any leaves.
 398 Adverse leaves, turning their faces, not to the sky but to the south; as, *Anomum*.
 399 *Arboreus*, arboresecent, of the nature of a tree producing buds. A term of great lubricity.
 400 Bulbiferous, bearing bulbs.
 Bulbs are either
 401 Scaly, consisting of imbricated lamellæ, as the lily root, f. 161.
 402 Solid, consisting of solid substance; as the tulip, f. 162.
 403 Tunicated, coated, like the common onion, f. 163.
 404 Articulated, consisting of lamellæ linked together as the *Lathræa*.
 405 Calcareous, of a hard crumbly nature, like dry lime plaster.
 406 *Circumscissus*, parting as if cut straight over; as the capsule of *Stellaria*.
 407 Cirrhous, terminating in a tendril.
 408 Columella, the part of a fruit-case that connects the internal partitions with the seeds.
 409 Intortion, the twisting of any part towards one side:
 410 To the right, supposing one's self placed in the centre;
 411 To the left, supposing one's self placed in the centre.
 412 Cotyledon, the lateral body or lobe of a seed, porous, and imbibing moisture, and afterwards falling off.
 413 *Acotyledones*, plants whose seeds have no lateral bodies or lobes; as the *Musci*.
 414 *Monocotyledones*, plants whose seeds have only one lateral body; as the Grasses, &c.
 415 *Dicotyledones*, plants whose seeds have two lateral bodies or lobes; as the *Legumina*, &c.
 416 *Polycotyledones*, plants whose seeds have many lateral bodies or lobes; as the Pines, &c.
 417 Monospermous, capsules or seed-cases that contain only one seed.
 418 Di—tri—tetra—penta,—&c. spermous, containing 2, 3, 4, 5, &c. seeds in one capsule.
 419 Polyspermous, containing many seeds.
 420 *Suberosus*, resembling cork.
 421 *Echinatus*, beset with spines or prickles, so as to resemble a hedge-hog.
 422 *Muticus*, without awn, beard, or prickle.
 423 *Pileus*, the hat or bonnet of a mushroom, which has the fructifications on its under side, f. 8. a.
 424 *Discus*, the middle part of a compound flower, consisting of regular florets.
 425 *Radius*, the rim or outward part, consisting of irregular florets.

SECT. V. Of the Sexes of Plants.

As many philosophers and botanists deny that such a thing as the distinction of sexes takes place in vegetables, it will be necessary to give a narration of the arguments employed by both parties on this subject. We shall begin with the arguments in favour of the sexes.

I. Linnæus is at great pains in tracing the notion of sexes in plants to the remotest periods of antiquity. He informs us, that Empedocles, Anaxagoras, and other ancient philosophers, not only attributed the distinction of sexes to plants, but maintained that they were capable of perceiving pleasure and pain.

Hippocrates and Theophrastus are next introduced as distinguishing the conyza, the abies, the filix, &c. into male and female. The latter of these writers affirms that the fruit of the male palm will not germinate, unless the pollen of the male be shaken over the spathe of the female previous to the ripening of the seed.

Dioscorides takes notice of a male and female mandragora, mercurialis, cistus, &c.

Pliny does not confine his views of sex to animals, but exclaims, that every thing this earth produces is characterized by the distinction of sex.

From the days of Pliny to those of Cæsalpinus, who lived in the 16th century, the analogy between the vegetable and animal seems to have been entirely neglected. Cæsalpinus tells us, that the males of the oxycedrus, taxus, mercurialis, urtica, and cannabis, are barren; and that the females of these plants only bear fruit.

After Cæsalpinus, we find Dr Grew and Sir Thomas Millington engaged in a conversation concerning the utility of the stamina and styli of plants. The result of this conversation was the mutual agreement of these two eminent naturalists, that the stamina and styli of vegetables were analogous to the organs of generation in animals, and that they were adapted by nature to answer the same purposes. Dr Grew, in his anatomy of plants, after enumerating the analogies between plants and animals, concludes, that the pollen probably emits certain *viscific* effluvia, which may serve for the impregnation of the seeds.

Mr Ray gave a further sanction to the doctrine of sexes, by concurring with Grew, and adding some further illustrations from analogy.

In the year 1695, Camerarius attempted to prove the sexes of plants. But, as he trusted solely to the palm-tree, and withal seemed to be doubtful as to the authenticity of the fact, he cannot be considered as having done any thing in confirmation of the sexual hypothesis.

Mr Morland, in the year 1703, adopted the same hypothesis; but gave it a new modification, by supposing that the pollen contained the seminal plant in miniature, and consequently that it behoved one pollen at least to be conveyed into every separate seed before it could be properly impregnated. Analogy and the structure of the parts are the only arguments he employs.

Some years after this, Mr Geoffroy wrote a treatise on the sexes of plants: but as he advanced nothing new, we shall take no farther notice of him.

Vaillant,

VIII. Terms expressing the mode of Expansion.

- IX. of Place.
 X. of Situation.
 XI. of Surface.
 XII. of the Margin.
 XIII. of the Point or Top.

SPECIAL TERMS or such as agree or are applicable only to certain Parts.

XIV. Terms applicable to the Root.

- XV. the Trunk.
 XVI. the Petiole.
 XVII. the Leaf: as being either
 { 1. Simple; or
 { 2. Compound, Decom-
 pound, or Supra-
 decompound.
 XVIII. the Down, Hair, &c.
 XIX. the Armour.
 XX. the Floral-leaves.
 XXI. the Peduncle.

Under this are included the Inflorescence and its different modes.

XXII. Terms applicable to the Fructification.

Under this are included,

- { 1. The calyx or cup.
 { 2. The corolla, or coloured part of the flower.
 { 3. The stamina, or chives.
 { 4. The pistillum.
 { 5. The pericarpium, or seed-case.
 { 6. The seed.
 { 7. The receptacle.

XXIII. Terms applicable to the Veneration.

XXIV. Additional Terms.

N^o I. The PARTS of a PLANT are,

- 1 The root, the organ that nourishes the plant.
- 2 The trunk or stalk, the organ that multiplies it.
- 3 The branches, or divisions and subdivisions of the stalk.
- 4 The petioles, or stalks that support the leaves (6).
- 5 The peduncles, or stalks that support the fructification.
- 6 The leaves, which are the organs of motion to the plant.

The FRUCTIFICATION, consisting of the Flower and the Fruit.

The Parts of a Flower are,

- 7 The cup, or outer rind of the plant, continued to and present in the fructification.
- 8 The corolla, or inner rind of the plant, continued to and present in the coloured part of the flower, fig. 11.
- 9 The stamina, or chives, the organs destined for the preparation of the pollen (332) or flower-dust, fig. 18. f, f.
- 10 The pistil, or organ adhering to the fruit, for the reception of the pollen, f. 18. c d.

The Parts of the Fruit are,

- 11 The pericarpium, or seed-case; the bowel or organ

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containing the seeds (12), which, when ripe, it lets go, f. 23, 24, 28.

- 12 The seed, or rudiment of a new plant, supposed to be vivified by the irrigation or sprinkling of the pollen or flower-dust, f. 27.
- 13 The receptacle, or base with which the parts of the fructification are connected, f. 9, a.
- 14 The stipula, or small scaly leaf that usually stands at the base of the petioles when they are rising, fig. 154. b.
- 15 A cirrus, tendril, or spiral thread by which a plant is tied to any neighbouring body, fig. 154. a.
- 16 A bractea, spangle, or floral leaf, differing in its appearance from the other leaves of the plant, fig. 156. a a.
- 17 The pubes, the down or hairyness of any sort on plants.
- 18 Arma, the armour or sharp points that defend a plant from being hurt by animals.
- 19 A bulb, the winter habitation of a plant, consisting of the remains of its former leaves.
- 20 A gem or bud, consisting of the rudiments of the plant's future leaves.

GENERAL TERMS.

N^o II. The DURATION of a Plant is either,

- 21 Annual, or dying within one year.
- 22 Biennial, or flowering the second year, and then dying.
- 23 Perennial, or flourishing for many years.
- 24 Caducous, or falling down and dying before the end of one season.
- 25 Deciduous, dying at the end of one season.
- 26 Persisting, not dying after one season.
- 27 Sempervirent, evergreen, or remaining fresh and green through all the seasons of the year.

N^o III. MAGNITUDE.

"I very seldom admit," says Linnæus, "any other than the proportional measure between the different parts of plants, where this or that part is longer or shorter, broader or narrower, than another."

Phil. Bot. p. 262.

N^o IV. SUBSTANCE is either,

- 28 Solid, filled internally with hard matter.
- 29 Inane, filled only with spongy matter.
- 30 Pulpous, filled with tenacious or glutinous matter.
- 31 Carnous, or fleshy, filled with a hardish pulp.
- 32 Cartilaginous, consisting of gristly matter.
- 33 Membranaceous, consisting of dry and skinny matter.
- 34 Fistulous, tubulated or hollow within.

N^o V. DIVISION is either,

- 35 Fissured, or divided by linear (70) notches, with straight (42) margins, f. 52.
- 36 Bifid, trifid, &c. to quinquesid, according to the number of fissures.
- 37 Partite, divided almost to the base.
- 38 Bipartite, tripartite, &c. to quinquepartite, according to the number of divisions.
- 39 Lobate, or lobed, divided down to the middle into parts standing asunder, fig. 55.

- 40 Sinuated, admitting of wide sinuses or notches on the sides, f. 61, 62, 63.
 41 Dichotomous, trichotomous, &c. divided successively into two, three, or more parts, fig. 152.

N^o VI. DIRECTION is either,

- 42 Right, or straight, free of bendings.
 43 Erect, rising nearly to a perpendicular, f. 119.
 44 Oblique, departing from a perpendicular, or horizontal line.
 45 Ascending, or turned archwise upward.
 46 Declining, or declined, turned archwise downward.
 47 Incurvated, turned archwise inward.
 48 Nutant, nodding, having the point turned outward.
 49 Reflex, having any part turned backward.
 50 Revolute (377) rolled back into a spiral line.
 51 Procumbent, weak and leaning on the ground.
 52 Flexuose, bent hither and thither.

The following terms respect chiefly the direction of branches (3).

- 53 Patent, expresses the direction of an acute angle.
 54 Diverging, parting at a right angle.
 55 Divaricated, expresses the direction of an obtuse angle.
 56 Dependent, looking straight to the ground.
 57 Distich, or distichated [flowers, leaves, or branches] turning to the two sides, though inserted all round.
 58 Sequent, turning all to one side.
 59 Apprest, approaching so as to be almost parallel to the stalk or trunk.
 60 Coarctate, almost incumbent towards the top.
 61 Diffuse, having small patent (53) branches.

N^o VII. FIGURE is that, either of Surfaces, or Solids, or Similitudes.

1. The figure of Surfaces is either,

- 62 Orbicular, of a circular form, f. 37.
 63 Subrotund, almost circular; and Subglobose, almost spherical, fig. 38.
 64 Ovate, having its longitudinal diameter longer than the transverse, with the base terminated by a segment of a circle, and the top narrower, f. 39.
 65 Parabolical, resembling a parabola.
 66 Elliptical, resembling an ellipse or oval, f. 40.
 67 Cuneiform, wedge-shaped, growing by degrees narrower toward the base.
 68 Oblong, having the longitudinal diameter any number of times longer than the transverse diameter, f. 41.
 69 Lanceolate, oblong (68), and attenuated (75) on either end, f. 42.
 70 Linear, everywhere of equal breadth, f. 43.
 71 Triangular, quadrangular, &c. according to the number of angles, f. 48.
 72 Rhombeous, or rhomboidal, of the shape of a rhombus.
 73 Trapeziform, of the shape of a trapezium.

2. The figure of Solids is either,

- 74 Filiform, everywhere of equal thickness.
 75 Attenuated, gradually losing its thickness towards the point.

- 76 Subulated, awl-shaped; linear, but attenuated towards the point.
 77 Clavated, club-shaped, growing thicker towards the point or top.
 78 Turbinate, top-shaped like an inverted cone.
 79 Globose, globular, like a sphere.
 80 Conical, resembling a cone.
 81 Teres, round, like a cylinder, f. 98.
 82 Semiteres, half round, semicylindrical.
 83 Anceps, two-edged, having the two opposite angles acute.
 84 Trigonous, tetragonous, &c. having three, four, &c. prominent longitudinal angles.
 85 Triquetrous, having three exactly plain sides (109).
 86 Gibbous, or gibbose, having both upper and under surface convex, by reason of a more copious pulp (30) intervening.
 87 Compressed pulpous (30), having the edges flatter than the disk or middle.
 88 Depressed pulpous, having the disk flatter than the edges.
 89 Lingulated, tongue-shaped; linear (70), carnos (31), convex (112), below.
 90 Ensiform, sword-shaped, ancipitous (83), gradually attenuated, or tapering from the base to the top.
 91 Acinaciform, sabre-shaped, compressed (87), carnos, having the one edge convex and thin, and the other straighter and thicker, fig. 92.
 92 Dolabriform, hatchet-shaped, compressed, subrotund (63), gibbous on the outside (86), with the edge sharp, and roundish below, f. 93.

The tubulated figures that are mostly applied to the corolla, are,

- 93 Infundibuliform, funnel-shaped, an inverted cone placed upon a tube.
 94 Campanulated, bell-shaped, ventricose (107), without any tube.
 95 Inflated, hollow, and as it were blown up like a bladder.
 96 Rotated, wheel-shaped, plain, and not placed on a tube.

3. The figure of Similitudes is either,

- 97 Cordate, heart-shaped, subovate, having a notch cut out of the base, without any posterior angles, f. 46.
 98 Reniform, kidney-shaped, subround (63), having a notch cut out of the base, without posterior angles, f. 45.
 99 Lunular, crescent-shaped, subrotund, having the base notched, with acute posterior angles, f. 47.
 100 Sagittated, arrow-shaped, triangular (71), having acute posterior angles separated by a notch, f. 49, 50.
 101 Hastated, halberd-shaped, sagittated (100), having the posterior angles divided by a blunt notch, and prominent towards the sides, f. 51.
 102 Lyrated, lyre-shaped, divided across into laciniae, or segments of no determinate form, whereof the under ones are lesser and more remote from one another than the upper ones, f. 112.
 103 Runcinated, pinnatifid (*i. e.* divided across into horizontal oblong segments), in such sort that the segments are convex on the fore-side and transverse behind, *e. g.* the dandelion.

- 104 Panduriform, pandour-shaped, oblong, and contracted or narrowed below.
 105 Spathulated, subrotund or roundish, with a linear and narrower base.
 106 Palmated, divided past the middle into lobes nearly equal, f. 58.
 107 Ventricose, gibbous or swelling out on the sides.
 108 Deltoid, rhomboidal (72), consisting of four angles, of which the lateral ones are less distant from the base than the other two; as the leaves of the black poplar. See also the figure of the ancient *delta* of the Greeks.

N^o VIII. EXPANSION is either,

- 109 Plain, having an equal surface.
 110 Canaliculated, hollowed above with a deep longitudinal furrow, f. 96.
 111 Concave, by the margin being less in proportion than the disk, and the disk of course depressed or pushed downwards.
 112 Convex, by the margin being less in proportion than the disk, so that the disk is elevated or pushed upwards.
 113 Cucullated, cowl-shaped, having the edges folded or curling inwards at the base, and spreading at the top like a cowl.
 114 Undated, waved, having the disk alternately bending up and down in obtuse plaits.
 115 Crisped, curled, by having the margin so luxuriant that the disk becomes longer than its rachis (283) or quill.

N^o IX. PLACE.

1. A Leaf is either,

- 116 Radical, growing out of the root.
 117 Cauline, growing on the caulis (197) or stalk, f. 125.
 118 Ramous, growing on a branch, f. 126.
 119 Axillary, placed under the base of a branch.
 120 Floral, next the flower. See Def. 16. f. 127.

2. A *Stipula*, or *scale*, is either,

- 121 Lateral, inserted into the side of a petiole.
 122 Extrafoliaceous, placed below a leaf.
 123 Intrafoliaceous, placed above a leaf.
 124 Oppositifolious, placed on the side of the stalk opposite to a leaf.

3. A *Cirrhus*, or *tendril*, is either,

- 125 Petiolar, growing out of a petiole or leaf-stalk.
 126 Peduncular, growing out of a peduncle or flower-stalk, &c. &c.

N^o X. The SITUATION of the Parts of a Plant is either,

- 127 Opposite, when the leaves, &c. are placed in decussated (129) or cross pairs, f. 114, 116.
 128 Alternate, growing all round a stalk or branch one after another gradually, f. 140.
 129 Decussated, placed opposite in such a manner, that if one look down from the top of the plant, the leaves, &c. represent four distinct rows.
 130 Verticillated, whirled; leaves, flowers, &c. surrounding the stalk or trunk at the joints in great number like a whirl, f. 35.

- 131 Bifarious, leaves, &c. growing only on the opposite sides of a stalk or branch.
 132 Sparse, placed without any certain order.
 133 Fasciculated, pencilled, growing in numbers out of the same point like a pencil, f. 143.
 134 Confert, close-ranged, leaves, &c. almost covering the whole surface.
 135 Distant, parts remote from one another.
 136 Terminal, placed at the top.

N^o XI. A SURFACE is either,

- 137 Naked, destitute of setæ (245) or bristles, and pili (240) or hairs.
 138 Levigated, smooth, of an equal plainness. The same with plain (109).
 139 Glabrous, of a slippery nature.
 140 Nitid, slippery and shining.
 141 Lucid, as if it were illuminated.
 142 Coloured, of a colour different from green (when that is the natural colour).
 143 Lineated, lined, the nerves being depressed.
 144 Striated, gently furrowed in parallel lines.
 145 Sulcated, furrowed in deep lines, f. 97.
 a. Alveolated, honey-combed, a receptacle deeply pitted so as to resemble a honey-comb.
 b. Hispid, any surface planted with stiff short hairs, f. 85.
 c. Rimose, full of rents or chinks.
 [The following terms, to 156, belong chiefly to Leaves.]
 146 Nervous, having unconnected small vessels, resembling nerves, running from the base to the top, f. 89.

- 147 Trinerved, having three small nerves meeting at the base.
 148 Triplinerved, having three nerves meeting above the base.
 149 Trinervated, having three nerves meeting below the base.
 150 *Enervis*, nerveless, the opposite to nervous.
 151 Venous, having veins or small vessels divided variously, without any regular order.
 152 *Avenis*, veinless, the opposite to venous.
 153 Rugose, wrinkled, full of wrinkles, f. 87.
 154 Bullated, having the surface, from being rugose, raised up in the form of bubbles, by the veins being contracted, the other side by that means becoming concave.
 155 Lacunous, pitted, by the disk being depressed between the interspersed veins.
 156 Punctated, besprinkled with hollow points.
 157 Papillous, covered with carnos or fleshy points, f. 90.
 158 Papulous, covered with vesicular or bladder-like points.
 159 Viscid, besmeared with a gluey moisture.
 160 Tomentose, covered with fine down interwoven together, hardly to be discerned, f. 84.
 161 Villous, covered with soft hairs. See *Villi* (241).
 162 Sericeous, silky, covered with very fine hairs laid close down.
 163 Lanated, woolly, covered as it were with a cobweb (or spontaneously curled hairs). See *Lana* (242).
 164 Pilose, hairy, covered with long distinct hairs. See *Pili* (240), and f. 83.
 3 K 2 165 Bearded,

- 165 Bearded, covered with parallel hairs. See *Barba* (243).
 166 Setaceous, bristly, set or covered with bristles. See *Seta* (245).
 167 Scabrous, having hard prominent points causing a roughness to the touch.
 168 Aculeated, armed with prickles fixed only to the bark. See *Aculei* (253).
 169 Strigose, having stiff lanceolated (69) prickles. See *Strigæ* (244).
 170 Paleaceous, chaffy, covered with dry scales resembling chaff. See *Palea* (246).
 171 Muricated, besprinkled with subulated points.
 172 Spinous, thorny, beset with spines, or prickles rising out of the wood of the plane.
 173 Burning, beset with stimulating and inflaming points, as the nettle, &c.

Nº XII. A MARGIN is either,

- 174 Entire, linear without the least dent or notch.
 175 Crenated, having notches without respect to the extremity, f. 74.
 176 Serrated, saw-toothed, all the notches and teeth looking towards the extremity, f. 67, 68.
 177 Ciliated, having parallel bristles set in a row lengthwise, like eye-lashes.
 178 Dentated, toothed, with the points patent and asunder, f. 66.
 179 Repand, having a plain serpentine form, f. 65.

Nº XIII. An APEX or Point is either,

- 180 Obtuse, terminated within the segment of a circle, f. 76.
 181 Emarginated, terminated by a notch, f. 80, 81.
 182 Retuse, terminated by a round bosom.
 183 Truncated, terminated by a transverse line.
 184 Acute, terminated by an acute angle, f. 77.
 185 Acuminated, terminated by a subulated or awl-shaped point, f. 78.
 186 Cuspidated, terminated by a bristle or prickle.

SPECIAL TERMS.

Nº XIV. A ROOT is either,

- 187 Fibrous, consisting wholly of small fibres.
 188 Bulbous, furnished with a bulb (19).
 189 1. Solid (28).
 190 2. Scaly, with the scales imbricated (390).
 191 3. Tunicated, having coats above coats.
 192 Tuberous, consisting of fleshy parts connected by threads to the base.
 193 Fascicular, consisting of fleshy parts connected to the base without the intervention of threads.
 194 Granulated, composed of small fleshy particles.
 195 Fusiform, spindle-shaped, single and tapering, f. 165.
 196 Repent, running out a great way, and budding here and there.

Nº XV. A TRUNK is,

- 197 1. A stem or stalk (f. 147, 148), a trunk supporting both the fructification and the leaves.
 198 2. A culm, proper to grasses, f. 147.

- 199 3. A scapus or shaft; a trunk supporting the fructification, but not the leaves, f. 149.
 200 4. A stipes or stock; a trunk changing into leaves.
 201 Scandent, climbing, but needing the support of other bodies.
 202 Voluble, twining, ascending (45) in a spiral line by the assistance of other bodies.
 203 Repent, creeping, lying on the ground and sending out roots here and there. See 196, f. 167.
 204 Sarmentose, full of twigs, filiform, with rooting joints.
 205 Stoloniferous, putting forth young shoots at the root, or tillering.
 206 *Simplicissimus*, very simple, having scarcely any branches.
 207 *Simplex*, simple, extended in a continued series towards the top.
 208 Entire, with the branches gathering inwards.
 209 Proliferous, putting forth branches only from the middle of the top.
 210 Subramose, having only a few lateral branches.
 211 Ramose, having many lateral branches.
 212 *Ramosissimus*, very ramose, loaded with numerous branches, without any determinate order.
 213 Virgated, having small weak pliant branches of unequal length.
 214 Panicked, having branches variously subdivided.

Nº XVI. A PETIOLE is either filiform, or,

- 215 Alated, winged, dilated on the sides.
 216 Spinescent, hard and pricking.

Nº XVII. A LEAF is either simple or compound.

A. A simple Leaf, f. 37 to 43, may be,

- 217 Submersed, hid under the face of water.
 218 Natant, swimming, lying on the surface of the water.
 219 Acerous, chaff-like, linear and persistent (26), f. 141.

The Insertion of Leaves.

- 220 Petiolated, having a petiole inserted at its base, f. 129.
 221 Peltated, or targetted, having the petiole in the disk of the leaf, f. 128.
 222 Adnate, connected with the branches at the base on the upper side.
 223 Connate, having the opposite pairs united at the base on each side, f. 134.
 224 Coadunate, having more than two united.
 225 Decurrent, having the base of the leaf running along the stalk downwards, f. 131.
 226 Amplexicaul, having the base surrounding or embracing the stalk, f. 132.
 227 Perfoliated, having the base surrounding the stalk straight across, without any opening before, f. 133.
 228 Vaginating, or sheathing, having the base forming a tube that covers the stalk, f. 135.

B. 1. A Leaf is called Compound, when the same Petiole produces more Leaves than one. It is

- 229 Articulated, jointed, when one leaf grows out of the top of another, f. 111.

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